



THE AGONY IN THE GARDEN. By EL GRECO

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COMPOSITION

AN ANALYSIS OF THE PRINCIPLES OF PICTORIAL DESIGN

FOR THE USE OF STUDENTS, ART SCHOOLS, Etc.

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CONTENTS

CHAPTER	PAGE
I. TONE	I
II. DISTRIBUTION	5
III. INTERCHANGE	10
IV. TONE AREA	14
V. GRADATION	17
VI. SCALE.	22
VII. EXERCISES WITH TONE	26
VIII. TONE TRANSLATION	32
IX. LINE-DIRECTION	37
X. LINE-DIRECTION (<i>continued</i>)	44
XI. RECTANGLES AND THEIR SUBDIVISIONS	52
XII. PERSPECTIVE AND COMPOSITION	63
XIII. RECESSION	76
XIV. RHYTHM	81
XV. COLOUR	88
XVI. COLOUR EXERCISES	96
XVII. HARMONY OF COLOUR	99
XVIII. BALANCE OF COLOUR	104
XIX. DISCORDS	106
XX. COLOUR-CONSIDERATION	109
XXI. CONCLUSION	112
INDEX	116

COMPOSITION

CHAPTER I

TONE

IT is the writer's experience as a teacher that students consider form and colour at the expense of the more abstract factor of *tone*. For that reason the question of tone has been treated first.

The word "tone," although capable of many different meanings, has been selected because of its brevity. If tone be defined afresh no misunderstanding need arise of the exact meaning attached to the word in these pages.

Tone is the dark-to-light scale, extending from black through intermediate greys to white. In thinking of tone in relation to pictures and illustrations generally, it is necessary to realize that it is the factor contributed by the dark and light in the work. We should put out of the mind all the confused ideas that surround this simple word. Terms such as "modelling," "gradation," or "light and shade" are possible, but not necessary, factors of tone. Unfortunately, to the student who has been taught to draw, to define shapes and fill them with light and shade, there is ever present the dictatorship of the immediate natural observation.

Pictures known as decorations, or even decorative in character, are often looked upon with suspicion by the copyist. He feels that there has been some arbitrary modification of things as they are seen naturally. A picture, however, as far as composition is concerned, is a decoration first and anything else second. If it is not a work revealing interesting pattern, if it is not an æsthetic joy "to look at," then it fails in what should be its essential quality. While

the student may see natural forms at a given moment, yet, lying apparently dormant in his sub-conscious mind, is the residue of the past visual impressions—what may be called visual experience. When this faculty of memory begins to awaken, the student is no longer satisfied with a mere transcript from Nature, useful though that may be as an exercise; he attempts to *create* pictorially an arrangement from Nature as modified by this sub-conscious memory. This pictorial adventure constitutes what might be called a “liberation” from the immediate or direct observation.

Thus, the instant that certain imitative shackles are thrown off, the restraining influence of the rectangle, or the enclosing shape of the picture, comes into action, and the problem becomes one of showing visually our impressions of life as arranged within this limited space. Every picture painted by a master is a world in miniature, complete in itself.

The moment a student draws anything, his sense of composition, or absence of it, asserts itself by the mere placing of his drawing on the paper. He begins to *arrange* his material, and this process goes on; gradually he finds new and more important truths about the familiar objects he draws. The final development occurs when artists arise who create pictures showing us a world quite unlike our visible world, peopled by figures and beings never seen by the physical eye. Turner, in his later phases, and Blake, with many others, come under this category.

It is important to remember that the sense of composition, of pattern and decoration in tone, line, and colour remains constant. Although pattern may be said to be inherent in the human mind, it must be admitted that much art study, necessary in giving the student the power to differentiate and characterize, does tend to blunt the perception of relationships, and pattern implies relationship.

One of the first things that must be grappled with is the essential difference between “light and shade” and “dark and light” as it is understood in composition.

If the four illustrations, (A), (B), (C), (D), Plate II, are examined, we find:—



A.



B.



C.



D.

SHOWING THE DIFFERENCE BETWEEN “LIGHT AND SHADE” AND “DARK AND LIGHT.”



YEIZAN.
(From a colour print.)

(A) A formal arrangement, with the qualities of flat or two-dimensional decoration. (B) An informal arrangement, suggesting depths photographic in character, a three-dimensional decoration. (C) A simplification of (B), but still retaining the three dimensions. (D) The same informal arrangement as (B) and (C), but treated in the two-dimensional manner of (A).

Such types as (A) and (B) are familiar to us, (A) with its flat decoration of *dark and light* tones and (B) with its illusion of space given to it by its *light and shade*.

It is in (C) and (D) that the confusion often takes place. (C) is still giving the illusion of depth, for the contours on the face and other forms are "derived" from light and shade. They are "shadow forms," and in consequence only a simplification of (B). (D), however, is a return to the two-dimensional condition of (A), because the shadow forms have been eliminated.

Dark and light exist in all four of the illustrations, but light and shade occur only in (B) and (C), and it should be clear that (1) "dark and light" exist in all decorations and pictures; (2) Light and shade exist in some decorations and pictures. Hence "dark and light," owing to its inclusive character, is the real bed-rock term for any true discussion of tone in composition.

The pictorial works of the Japanese, Chinese, and, indeed, of most of the Eastern world, are confined, for the most part, to the condition implied in diagrams (A) and (D); that is to say, depth, perspective, and three-dimensional representation has been avoided. Plate III, a colour print by Yeizan, illustrates this condition.

As we shall see later, gradation in Eastern art is used to distribute tone, to improve the pattern rather than to express modelling or rotundity.

The art of the Western world has merged pattern with three-dimensional observation. The Western masters imagined that depth, the illusion of space, the subtleties of close observation, and the underlying sense of pattern could be successfully welded. Yet, even in the West, the

Primitives, and many of our Moderns, have felt the joy of working in the more abstract two-dimensional manner. It is not the immediate business of the student to make a choice, but it certainly behoves every worker in the fine arts to know the true nature of decoration.

CHAPTER II

DISTRIBUTION

DISTRIBUTION, as applied to tone, means the satisfactory "placing" of the dark and light tones that are used in the making of a pattern or picture. It is probable that the sense of fitness in our ideas of distribution depends on natural laws, on our knowledge of the average happenings in daily life, and particularly belongs to the sense of balance or equilibrium.

If a card be balanced on the tip of the forefinger, and pieces of lead of varying or equal sizes placed on it, it is possible to arrange them so that the equilibrium is maintained. An arrangement such as that illustrated in Fig. 1, with one central weight and four others equally disposed towards the corners, would preserve equilibrium. An infinite number of such regularly disposed arrangements are possible, and such an idea, although crude, gives us some idea of the basis of distribution in formal pattern.

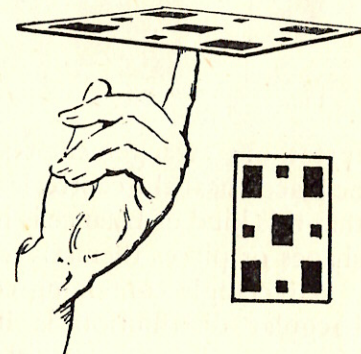


FIG. 1.

If pictorial distribution is to be understood, the idea of equilibrium must be extended, and a distribution giving equilibrium of an informal character must be employed. If the card be balanced as before, and a piece of lead placed just off the centre, equilibrium can be established by placing a few smaller pieces at a position on the side of the centre that is opposite. Such an arrangement is illustrated in Fig. 2, and it should be evident, without making

the actual experiment, that equilibrium is again established.

It should be noted that as the pieces are removed to a greater distance from the centre of the card—towards the edges—it is still possible to establish equilibrium.

Fig. 3 is an example of such an arrangement. Fig. 4 is an example of imperfect equilibrium. Fig. 5 is an example of a possible readjustment.

It follows that if a large piece approaches the edge, more pieces will be required to effect the balance, and a general



FIG. 2.



FIG. 3.

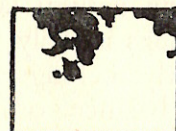


FIG. 4.



FIG. 5.

spread-out arrangement results. Conversely, if a large piece be placed near the centre, less distribution is necessary. Seeing that this kind of balance is informal, it should follow that the shapes or pieces themselves should be unequal in area.

A rectangle containing equality of area in shapes with an irregular distribution is illogical, and consequently does not succeed in composition. Sometimes a decoration or composition is of necessity subordinated to its environment. A cathedral full of regularly disposed areas demands formality in the arrangement of its stained glass, and consistency frequently demands that an altar picture or decoration should become formal enough to agree with its surroundings, in which case distribution and areas become more regular.

Three illustrations are given in which the distributed tones possess recognizable forms. Fig. 6 is an example of the distribution that is arranged near the centre. Many examples of this kind are to be found in Japanese prints and other Oriental work. Fig. 7 is an example of the more open distribution, the darks spreading to the edges of the rectangle. Fig. 8 is an example of a more formal composition of the kind mentioned above. Here, then, we have the primitive

beginning of distribution, and, whatever subtleties may follow, the sense of equilibrium should be maintained.

This sense of balance is inherent in everyone, for children delight in painting patterns of this kind until their attention is diverted—usually by their teachers—to the scientific rendering of isolated forms or objects. The pattern-sense rapidly retreats into the sub-conscious, and it is only by critical and patient study that the student can regain this sense of decoration. This, so far as tone is concerned, can



FIG. 6.



FIG. 7.

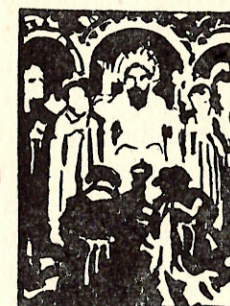


FIG. 8.

be done by an intelligent appreciation of equilibrium in relation to distribution. What has been said of distribution of black on white will, of course, apply equally to white distribution on a black ground. The intermediate greys should also distribute themselves in a similar manner.

Although it is necessary that the areas or patches that are distributed in a given rectangle should have form or boundaries, yet distribution must, as far as possible, be conceived independently of form. This is said advisedly, for in most cases it is owing to the study of form, independently of pattern, that the sense of pattern becomes dormant. The sense of form is so ascendant in most students that it asserts itself like a malevolent spirit, and diverts the attention from distribution. To carry the sense of distribution further, experiments must be made in order to see how far it is possible to displace our tones and yet recover the feeling of equilibrium.

Let three tones be used: black, white, and an intermediate grey.

If the surface of a rectangle be considered as covered with the intermediate grey, then the white and black might be separately distributed on this surface, making such patterns as (A) and (B) in Plate IV, which give a formal and informal distribution. This, however, is no more than would arise from the principles already stated, with the use of a third or intermediate tone.

If an intermediate tone be considered as covering the rectangle as before, and a black pattern be placed on it, out of equilibrium as in (C), (C) has a preponderance of black on the upper half.

Equilibrium can be established by placing the white tones with a preponderance in the same direction, as shown in (D). It can be seen that the introduction of white against this unbalanced black cancels the excess.

The well-known rule that the strongest light should be close to or against the strongest dark has little or nothing to do with this displacement.

The decorative or pattern requirement of our last experiment is to restore the lack of distribution, for it is in the management or organization of form that focus is usually given to a picture. It must be admitted, however, that the eye seems to pause at that portion of a picture in which the strongest contrast occurs.

This idea of displacement and its subsequent replacement holds good when more tones are used. If the student examines a number of pictures with a view to the discovery of displacement, it will be found in varying degrees in all. Displacement adds a certain vitality by its apparently rebellious flying away from our accepted ideas of stability. It is the manner of the replacement that justifies its departure in the long run. Its practice makes for a more informal pattern because it covers up to some degree what might be termed simple distribution.

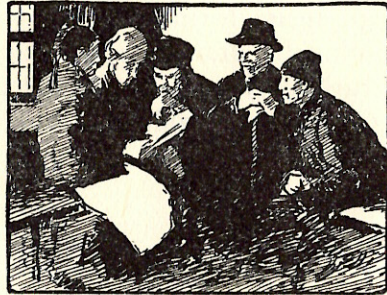
If the rectangle be covered with black or white (instead of the intermediate grey) it is possible to secure a satisfactory

distribution by arranging a small piece of the extreme tone so that it balances a larger piece of the intermediate tone. A few examples of such balance are given in (E), (F) on the same plate.

Many other possible restorations or replacements will present themselves; for example, the white mount of a picture, if suitably cut, will to some extent correct a displaced distribution. Then, again, form can co-operate and replace imperfect distribution by drawing the attention away from the otherwise disturbing factor of unbalanced tone. Enough has been said, however, to enable the student to think out such matters for himself.

CHAPTER III

INTERCHANGE



Village Politicians (Wilhelm Leibl).

INTERCHANGE is a fascinating quality of light and dark. Its function is to give variety to simple distribution. It allows similar forms in opposite tones to be reiterated or repeated.

Interchange has been so fully discussed in most text-books on formal design that a brief reference to it in ornament will be quite sufficient to allow its pictorial aspect to be examined. If we imagine a chess-board with its chequered squares alternately light and dark, and then on the light squares a shape of dark and on the dark squares a similar shape of light, the principle at once becomes manifest.

If we take the outlines of a couple of leaf-forms or animal-forms, arranging the tones so that one leaf is white with black veins and the other black with white veins—the animals to have white spots on a dark coat with a white background and black spots on the white coat with a black background—it will be seen that interchange provides a very ready means of introducing variety of tones with similar shapes. The illustrations given on Plate V demonstrate the principle

PLATE IV.



E.



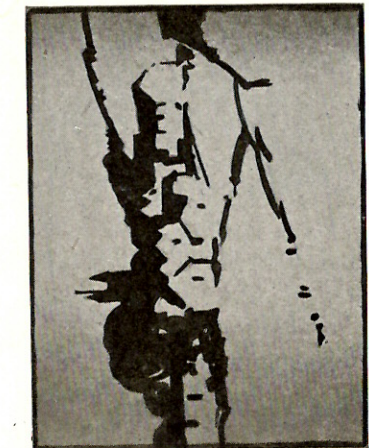
B.



A.



F.

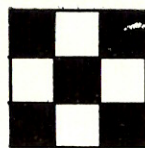


C.



D.

EXPERIMENTS IN DISTRIBUTION.
THREE-TONED FORMAL AND INFORMAL DISTRIBUTION.



EXAMPLES OF INTERCHANGE.

from strictly formal designs to ornamental motives bordering on the pictorial.

In pictorial work interchange is not quite so evident owing to the complexities of form, but it remains, never-

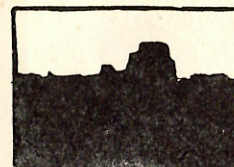


FIG. 9.

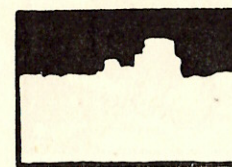


FIG. 10.

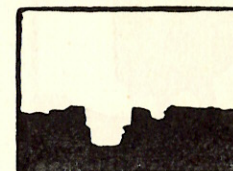


FIG. 10A.

theless, a very active factor. In illustrations Figs. 9, 10 and 10A, a rectangle is shown with one portion dark and the other light, which, pictorially considered, might represent sky and earth. It is monotonous and lacking in distribution, but if some of the dark be transferred to the light area, and vice versa, the rectangle gains both variety and distribution, as in Figs. 11, 12 and 12A.

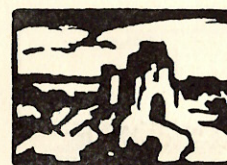


FIG. 11.

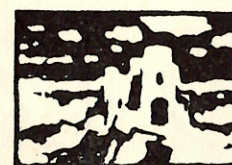


FIG. 12.



FIG. 12A.

Once this principle has been assimilated it becomes apparent in almost everything that is seen in Nature. The light sides of objects are often seen against dark backgrounds, whilst the dark sides of the same objects are contrasted with a light ground. Light trees against dark trees, and dark trees silhouetted against the sky, may be seen at one and the same time.

Often a tree that is light in its lower portion against the dark background reverses its arrangement on its upper portion by appearing dark against the sky.

The same figure that is seen lit up by the sun or the street lamp moves into shade and becomes dark against

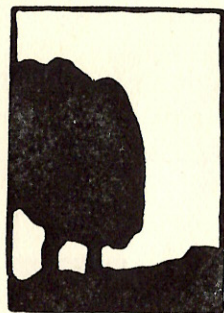


FIG. 13.



FIG. 14.



FIG. 15.

some light background. This interchange is one of Nature's ingenious methods of giving variety, and the student should have no difficulty in finding many such examples.



FIG. 16.



FIG. 17.

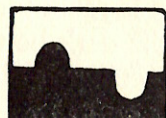


FIG. 19.

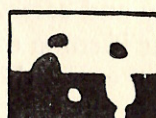


FIG. 20.



FIG. 18.

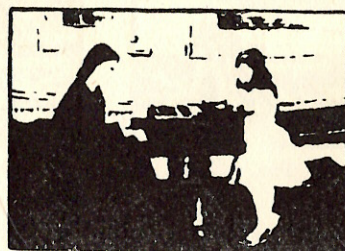


FIG. 21.

There is one thing that must be especially noted. The employment of interchange usually makes for naturalistic representation, as shown in Figs. 13, 14 and 15, and the student who wishes to design with dark and light—without light and shade—must be on his guard or he will find his two-dimensional scheme becoming three-dimensional in certain parts of his work. Shapes that, as explained in the first chapter, suggest rotundity are apt to creep in. Even when gradation is absent, interchange can sometimes, with

its attendant forms, bring about this trouble. If the accompanying illustrations are studied it will be clear that interchange can be used with great effect, even in the more abstract condition of the two-dimensional decoration.

Figs. 16 to 21 show two pictures—one by Harpignies and the other by Whistler—analysed to illustrate the principle of interchange.

CHAPTER IV

TONE AREA

THE quantity of dark and light and the range of tone in a picture or decoration depend to some extent on the medium employed and the environment in which such works are to be placed. The medium and the environment have a modifying influence apart from what the artist wishes to say. He invariably finds the medium that suits his outlook, and such influences can be discussed as we compare the accompanying simplified illustrations.

Four compositions by Manet are shown in Plate VI.

Edouard Manet was a mass-impressionist, and his work possessed good distribution and simplicity of design. His range of tone was wide and well defined. His areas were arranged, in our examples, so that the dark area approximately equals the light area. When such tones are widely separated, with the areas of dark and light equal and a considerable proportion of the areas arranged to be at these extremes of dark and light, we find that tone achieves its maximum vitality and its most dramatic qualities.

In the tone analysis of a Turner, given next, in Plate VII, we find the intermediate tone occupying a larger area than that of the previous illustrations. The extreme lights and darks are proportionately smaller, and such a scheme is not as trenchant in character as those we have just examined.

The next illustration, Plate VIII, by Goya, gives us an arrangement in which the darks preponderate, although the tones are far apart in range. Such a scheme, although tending to be solemn, tragic, and eerie in character, has been successfully employed in many portraits. The *Duchess of Milan*, by Holbein, in the National Gallery, is an outstanding example. Such pictures seem to agree with warm oak-panelled rooms and dark interiors generally.

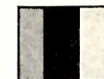


PLATE VII.



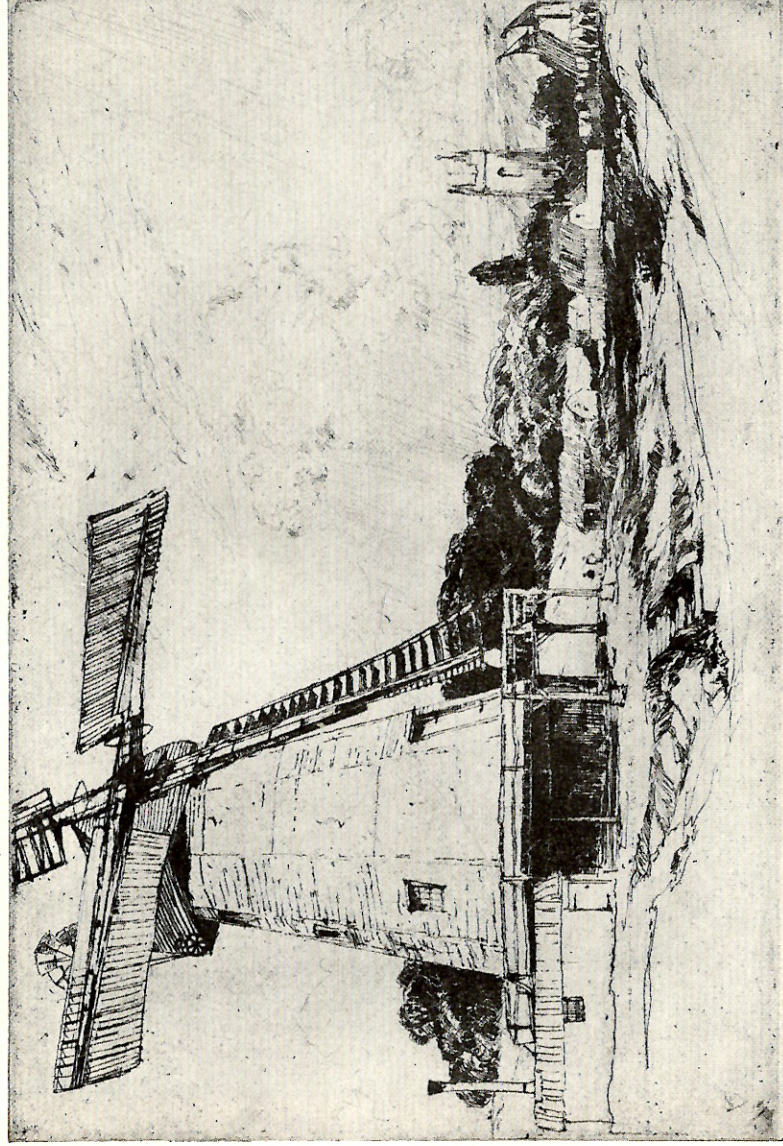
LANCASTER. BY J. M. W. TURNER.

PLATE VIII.



AQUATINT BY GOYA.

PLATE IX.



AN APRIL DAY IN KENT. BY SIR FRANK SHORT, R.A., P.R.E.

PLATE X.



JUNE CAPRICE. BY SIR W. RUSSELL FLINT, R.A., R.W.S., R.S.W.



THE SPRING. BY PUVIS DE CHAVANNES.

Our next illustrations, Plates IX and X (an etching by Sir Frank Short, R.A., P.R.E., *April Day in Kent*, and a water-colour by Sir W. Russell Flint, R.A., R.W.S., *June Caprice*), give us schemes in which the tones are widely separated although the light portions preponderate. Perhaps the best etchings and water-colours have this quality in common, for these media naturally lend themselves to such proportions of tone. Our modern, cheerful, light-filled homes are admirably adapted to house such works, for they agree in general tone with the light walls they decorate.

Now let a decoration by Puvis de Chavannes, Plate XI, be considered. The tones are not wide apart, and the general effect is light. Experience has shown that such an arrangement of tone in which the light preponderates is eminently suitable for mural decoration. The whole surface must be visible at once. Strong darks on such a large, light surface would destroy the repose. The tonal vitality that must of necessity be sacrificed gives place to other qualities more suitable for such a position—contours, interesting forms, and delicacy of colour.

A very small picture can be wide in range of dark and light; it can even be allowed aggressive snap to make up for its diminutive proportions. Just here, it should be noted, is a great stumbling-block for the student who enlarges such a sketch. The range of dark and light becomes increasingly intense as a picture increases in size. A narrowing of range is consequently called for.

When we give up any artistic quality such as tone, there must be an æsthetic compensation.

A good etching, thus considered, is a filigree pattern of line full of delicacy and intricacy. The tone distribution is usually confined to a few masses of black—pause-points, as it were—giving quietness in order that we may more fully enjoy the line. A piece of black lace on a white ground would give similar decorative qualities. Here, then, we find that what has not been attempted in tone is compensated for by line. Similar arguments might be put up with other media, but enough has been said to suggest that whatever

medium is employed, whatever environment is given, the æsthetic "content" must be the same and the vitality under any circumstances must also be equal.

We shall gather from the foregoing remarks that when a picture is dark in character, the tones preponderating towards black, and also narrow in range, our chances of making such a picture a success are very small. The dark tones hide any attempts to compensate by means of form and colour. Most students who have attempted to paint a picture of a night-effect will understand this difficulty. An inspection of Whistler's nocturnes will teach us that a transposition of Nature's dark range is necessary in order to avoid dullness and monotony.

It is more than probable that all that is seen requires transposition, for the range of tone in Nature is so great and the best possible pigmental range is so small that the most stubborn of realists—or, to put it more accurately, naturalists—is inevitably driven to an æsthetic translation.

CHAPTER V

GRADATION

OF all the qualities connected with tone, perhaps gradation is the one to which most attention is usually paid by the student. Many of the subtleties observed in Nature seem to call for gradation for their expression. One of the most difficult tasks for the teacher is to divert the student's attention from this quality in order to fasten it on to the other factors that are used in the building up of a composition the structure of which is based on "light and dark."

The moment gradation enters into the scheme a hollowing-out, a three-dimensional vision, almost invariably enters into the conception. Yet it is possible to use gradation in a more abstract manner without becoming too involved, and to preserve the two-dimensional aspect. Many Japanese, Chinese, and Indian paintings testify to this possibility. It must be admitted, however, that there is little chance that such abstractions will become popular with the student living in the Western world, where the realization of a three-dimensional aspect is so great an aim. If the factor we call gradation is considered from the point of view of composition, it will be seen that its functions are as follows: (a) Distribution of dark and light *without form*; (b) the simplifying of adjacent tones by the use of intermediate tones in order to join up and give unity (forms are quietened or hidden by this means); (c) the giving of vitality to a space.

(a) The distribution of tone without form will be readily understood, and need call for no further explanation. The exact amount of tone is governed by the law of distribution and also a rhythmic law—a relative consistency—that will be considered later.

(b) The simplifying of adjacent tones by the use of

intermediate tones should be regarded as a step towards unity.

If a simple contour be drawn across a rectangle, and the

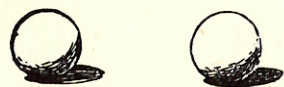


FIG. 22.

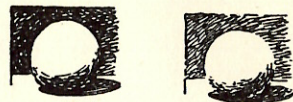


FIG. 23.

lower portion of the rectangle made darker than the upper, a gradation on a part of the upper portion towards the dark will tend to unify the two tones, and will put the part of the contour under treatment into a subordinate state. The same effect would result if the lower portion of the contour were made lighter at a position near the light upper half. The illustration A, Plate XII, shows this unifying use of

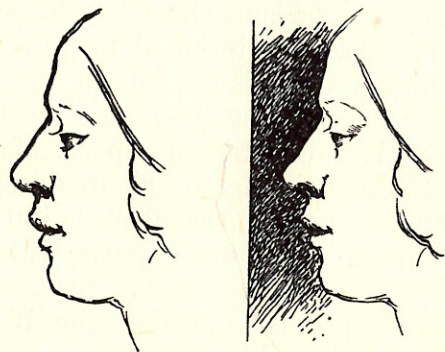


FIG. 24.

tone. One form of gradation may be seen on outlines apparently unaccompanied by tone.

The representation of form by line is a convention that we have come to understand without question. In its pure diagrammatic condition it represents boundaries of things—the limitations of objects in space. The sophisticated draughtsman, however, is rarely restricted by this kind of line, for, although retaining line as the means, he usually employs a variety of thickness—a losing and finding of the contour. Here he gives a clear, sharp edge—an accent, it

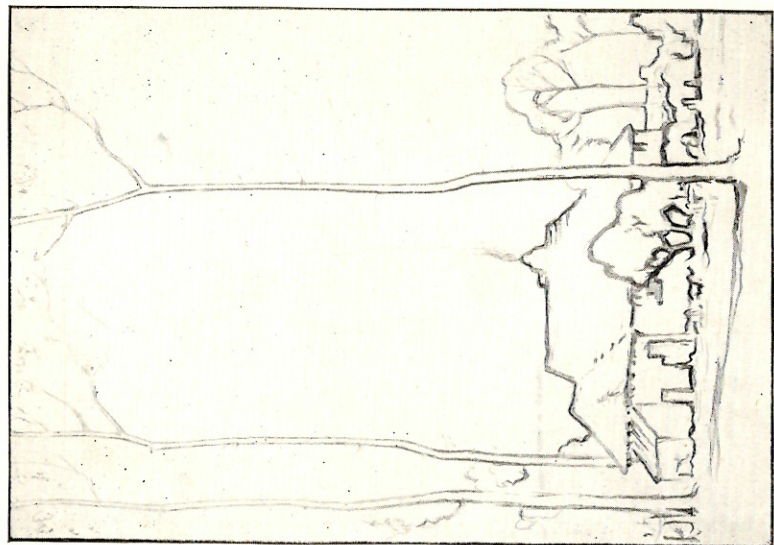


A. SHOWING GRADATION USED TO MODIFY A CONTOUR.

B. VIEW OF FUJI. BY HOKUSAI (NO. 38).
SHOWING GRADATION USED AS TONE DISTRIBUTION.



A.



B.

LINE DRAWING "B" SUGGESTING THE TONES OF "A."

may be called—which gradually gives place to a thicker but quieter portion; then he allows it to crumble, double itself, and interlock with other lines. A thousand-and-one things happen to give quality to a line or boundary.

All these varieties are caused by the artist's desire to express the depth, the way the object goes back and around, the desire to express the three dimensions. A diagram pure and simple only expresses boundaries. If the accompanying diagrams (Figs. 22, 23 and 24) are observed, it will be seen how the line quality can suggest different dark and light values on either side.

If this explanation be reduced to simpler terms it means that in the line accompanying X₁, X₂ (Fig. 24A), the side of the paper indicated by the arrow looks whiter than the other side. Thus the effect of tone and gradation is suggested.

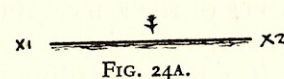


FIG. 24A.

This is a very important quality, over and beyond mere line as such, and it is the real beginning of tone and gradation emerging from the line itself. Even if outline alone is used the variety of its thickness is quite sufficient to suggest gradation (as shown in B, Plate XIII, where the outline suggests the tones of A). When we observe this variety of line in the works of the masters, it might appear, at first sight, to be mere caprice, swaggering style, or pure exuberance on the part of the artist. It really means that the artist is interested in line *plus tone*.

The strength and variations of line are suggested by the varying differences of tone on adjacent sides of the line, in addition to the actual boundaries of objects defined by the line.

A further analysis of this question of tone-suggestion in line would carry the writer and the reader into the realm of drawing and away from composition. The question of edge-study, moreover, has been dealt with very fully in Professor Seaby's book on *Drawing*.

The third function, C, which is the giving of vitality to a space, must now be considered.

When flat tones are used throughout a decoration a certain pleasure is felt in the consistency of such a simple treatment. Cut paper and many other media lend themselves to flat tone decorations. But unless the forms or colours give special aid we find that the condition of flatness causes monotony, and a certain baldness becomes apparent. If the forms and colours are intentionally unobtrusive something must be done to bring the picture out of its monotonous condition of flatness. This is the question of how to give sufficient vitality to the flat tones. A widening of the tonal scale would, it is true, give more vitality, but would entail the danger of breaking up the pattern. In order to keep the tones of the same value something in the nature of a patina, or surface variation, is needed.

Textures, mottling, stippling, hatching, splattering, and a host of other names, varying with the medium employed, give vibrations of surface. This titillation of surface is another starting-point of gradation. Gradation, as it is generally apprehended, gives a lightening or darkening of tone from a given position. One of the constant troubles in tone-composition lies in the management of this variety of surface. It is more than likely that additional complexity will only take away the simplicity and the unity of the flat tones, though its true aim is to give greater vitality. This is because the gradation is not truly related to the areas.

When gradation or surface quality is given to a decoration the amount or range of gradation should be proportionate to the area.

If a picture could consist of two equal portions, the gradation on each portion should be equal. If a picture consists of two unequal spaces, the larger area should be gradated more than the smaller area. Very small patches in a given composition could remain nearly flat whilst the larger areas might receive considerable gradation.

If this law is not obeyed, a small over-gradated area robs the rest of the picture by monopolizing the attention of the spectator—that is, inconsistency has crept into the composition. Lack of unity has taken the place of general vitality. Many pictures and posters have failed through

lack of attention to this relationship between gradation and area. If one walks to the nearest poster-hoarding it will be easy to find compositions with flat patches over most of the areas and suddenly a highly gradated portion—probably the head or the commodity that is being advertised—out of all relation with its environment of flat tonal treatment.

The defence of such work is that it gives contrast and attracts the attention to the highly modelled portion. It does, but at the expense of the rest of the decoration. The true decoration is one in which every patch and every area assists in the general scheme, where competition has given way to co-operation. If a certain portion of a painting is intended to hold the attention the effect should be obtained by strength of tone, by form, or by colour, either singly or in combination, and not by the illogical treatment of tone. Every student should endeavour to train his sense of relative gradation. It is not, however, necessary to calculate the mathematical ratio of space to gradation, although this may be one form of intellectual appreciation.

It is better to look at pictures and “feel” how each portion, with its own peculiar subtleties, contributes to the rhythmic tonal arrangement.

CHAPTER VI

SCALE

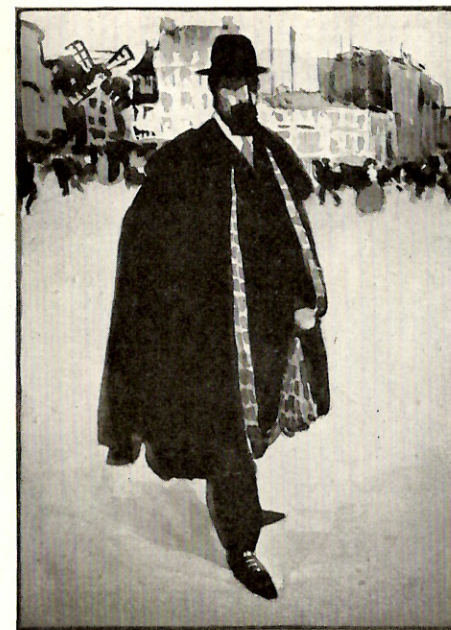
ONE of the difficulties in a discussion on composition is the necessity of dissecting the different qualities in order to explain them separately without confusion. Tone, which in itself is only a part of composition, has been split up into its component parts: distribution, interchange, and gradation.

These factors, after examination, must be considered collectively. Our aim should be to understand dark and light and its functions in detail, and then bring to a unified structural intention all the factors we intend to use. Tone must be arranged in our limited enclosing shape, not only in compliance with distribution and the other factors, but to form a unity.

Where black and white patches without any intermediate tones are used, we have a condition of extreme contrast that it is difficult to harmonize. It can only be done by a descending scale of areas. In working on a black ground with white, our white patches must be arranged so that there is a progression from the largest to the smallest patch. Such a progression must also apply to the black tone in the composition.

A great many of the difficulties that occur in the more complex patterns arise owing to the fact that, whilst one set of patches has scale, the surviving areas in the other tone have been left unconsidered and do not possess it. For the purpose of testing such arrangements it is a good plan to join with a line or to number, at appropriate places the patch of tones that has already been given some sense of scale. By this means we see more readily what has happened progressively to the other set of areas.

Figs. 25 and 26 show this descent in scale. Such an



THE SPANIARD IN PARIS. BY EVENEPOEL.



THE TURKISH SCHOOL. BY DECAMPS.



RAPHAEL.



VANDYKE.



WATTEAU.



MURILLO.



TITIAN.



M. MARIS.

TONE ANALYSES FROM THE WORK OF THE OLD MASTERS.

exercise is by no means easy, for although there are only two tones, it must be remembered that black and white are as unrelated as it is possible for any two tones to be. Many early attempts at dark and light distribution are ruined by the lack of scale. A large blob is made and then a few small spots. Such a precipitous descent in scale—if it can be called a scale—must be avoided by the use of blobs



FIG. 25.



FIG. 26.

of intermediate sizes. If we can only keep up our interest in these somewhat abstract exercises, without allowing form to bother us, we shall begin to realize the rhythmic relation of space to space, which is scale.

A picture often loses unity through the over-emphasis of interchange, although in formal design interchange may be satisfactory with equal areas and tones. The informal designs used in pictorial work should always be unequal in area and (if more than two tones are used) in tone. If this is not borne in mind there will be a danger of competition between the respective factors of the interchange. The diagrams (Figs. 27 and 28) given illustrate this point.

When three tones are to be used—black, white, and intermediate grey—the problem of relationship is easier, for the eye can be led across the whole area of the pattern, not only by means of scale in the areas, but by the inter-

mediate tone. This intermediate tone can then be considered an additional unifying factor.

If complete unity is to be achieved it is necessary to link all the white areas and all the black areas. Such a joining up



FIG. 27.



FIG. 28.

by means of the intermediate is shown in the accompanying illustrations, Figs. 29 and 30, and Plates XVIII and XIV.

When a large number of tones are employed the question of scale still holds good, but there is no longer the difficulty of relating the dark and light areas. Such a difficulty nearly disappears with the addition of gradation, and if we also allow the tones to be narrowed in range of pitch—that is, if the tones we use are not

very dark or light—we arrive at a condition when our former troubles have disappeared. We have achieved unity, but, alas! at the expense of vitality.

It should be our aim to avoid the detached, disconnected statement and also the over-united or cloying statement. "The maximum of vitality without losing the unity" might be taken as an appropriate motto. Though the foregoing conclusions may appear to be tedious and unnecessarily abstract, yet the exercises in a few tones that have been suggested are valuable for the reason that the student finds out the real difficulties of tonal construction. His attention is pinned down to the underlying structure. Alongside such abstract exercises should come the tonal analysis of the masters. Pictures or reproductions by the masters should

be studied, and after a careful survey of the proportions and areas such work should be simplified by using only three tones in the analysis. These exercises, in any suitable



FIG. 29.

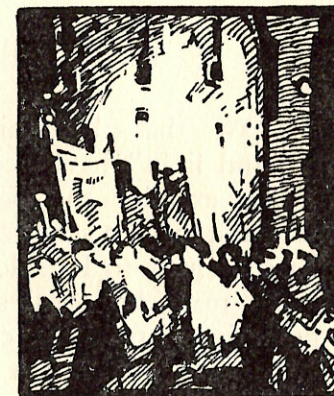


FIG. 30.

medium, should be small in size. The endeavour should be to see how the tonal factors have been arranged and to appreciate the pattern-sense of such works. Plate XV gives a selection of such exercises.

A certain amount of concentration is necessary. The mind must not be allowed to wander off the track and stray towards intricacies of form or speculate on the colour of a given area. The desire to "finish" such exercises by using additional tones must be resisted; such tendencies to copy will, it is hoped, give way to the desire to arrange a tonal rectangle of our own composition, for even if this personal adventure does not compare favourably with the work of the master, we have at least created a problem that calls for solution.



FIG. 31. (From Whistler.)

CHAPTER VII

EXERCISES WITH TONE

NOW that the main principles underlying "dark and light" have been enunciated, we may proceed to examine the best methods by which its full appreciation may be acquired.

If a student is to be able, at will and without conscious effort, to make his tonal schemes a success, a great deal of preliminary practice, considerable concentration, and all the critical power that he possesses will be involved. The materials necessary are as follows: One or two good sable brushes; Indian ink; process white (or any good covering white); white, black, and grey paper.

The grey and black paper could easily be prepared from the white. It will be found easier in practice to compose patterns to fill small spaces. Such spaces can be surveyed at a glance, and are more under command.

The student should draw several small rectangles, about three inches long with depth to suit, on a piece of white paper. Such rectangles should not be too near to each other. A strong black line, drawn with the brush, defining these rectangles, is the best preliminary to this exercise. Other shapes, such as semi-circles and circles, may be introduced as variants as the exercises proceed, but the rectangle is the most troublesome, and in consequence the most useful. Let a start be made by placing an *irregular* spot (about the size of a threepenny-bit) a little off the centre of one of the rectangles. The size and the position suggested are quite arbitrary. When this first spot, wherever it is and whatever size it is, has been placed, it will be necessary to pause and calculate the best positions for the additional spots.

When these have all been placed we must ask ourselves the following questions: "Does this arrangement please

EXERCISES WITH TONE

me?" "Would another large or small spot in this or that position improve the design?" "What would be the result if a black spot were put down in this corner or if it occupied a position along this edge?"

If the result is not happy, if the arrangement cannot be enjoyed in the abstract—that is, without knowing what it represents—then there is something to be done that requires further thought. It is at this point in the exercise that greater and still greater efforts must be made.

There is no gain in making a fresh start in the second rectangle, however desirable it may appear, until some reason is found why the spot distribution in the first rectangle is *not* satisfactory. Perhaps the black spots have invaded the rectangle to such an extent that scarcely any white is left! We should work with white in the brush in such a case. This is a trying exercise, with very little immediate gain in sight, and yet it is the very basis on which a great deal of our æsthetic enjoyment depends.

There will be found a strong tendency on the part of the beginner to draw a few lines representing something, and from this basis proceed with the exercise. Such an idea is useless, for it makes the distribution more difficult. With no preliminary forms the student is free to put the spots wherever the feeling or fancy dictates, and the spots are not required to conform to any pre-arranged set of lines. Mental mobility, then, is an essential state of mind for such an exercise.

Similar conditions prevail if a spot is "turned" into some shape it already slightly resembles—a fish, a bird, or the profile of a face. Such resemblances cause the student to turn his attention from the real exercise; the concentration that was required for distribution is consequently diverted to making other spots come into "form" relation with the shape that has become so realistic. Thus, while the imagination may be stimulated, the distribution is inclined to become secondary in interest.

One of the troubles that occur in such an exercise is illustrated in Figs. 32 and 33 (lack of scale). In Fig. 32 the

pattern suffers from equality of scale in the spots. In Fig. 33 the spots are too unequal. It is useful, as the exercises continue, to make it a condition that one or two of the corners be filled up, or one side, and the distribution started

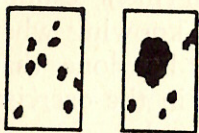


FIG. 32.

FIG. 33.

with this beginning. After the critical examination of many such efforts a discovery will probably be made. Certain distributions, appearing more pleasing or more successful than others, will be found to have one thing in common, viz., a certain consistency about the edges or forms, in a given rectangle.

Perhaps a rectangle will be found with an apparently impossible spot—it might be termed an ugly spot. Here we should pause to consider a question that will prove to be of immediate importance in later work. Is ugliness merely inconsistency?

A similar rectangle should be started with the alleged ugly spot arranged as nearly as possible in the same position and size as before. Now make other spots of a similar shape, suitably distributed and of varying sizes, and it is possible that the student's former conception of ugliness will undergo a modification. A piece of white paper pasted over the offending spot in the first rectangle may have a new spot put on it, more like the others in shape.

The monotony of using black ink on white paper may be varied by using white on a black ground (Fig. 31). It is just as important that the white distribution should be as good as the black distribution, even in the same rectangle.

Grey paper of a middle tone—i.e. approximately half-way between white and black—forms the basis of further exercises in tone-distribution. When simple distribution has been to some degree assimilated, exercises in displacement should follow. Such exercises would consist briefly in:

(a) Placing the black spots so that their relation to the enclosing grey rectangle is unbalanced and then placing the white spots so that the feeling of balance is restored.

(b) Placing on a white rectangle a few small spots of

black to be balanced by a larger area of the intermediate grey.

(c) Arranging on a black rectangle a few spots of white to be balanced by a larger area of the intermediate grey.

Alongside of such exercises the old and modern masters should be assiduously studied. Both Eastern and Western art bring a wealth of ideas with reference to tone-distribution. All pictures, good or bad, when examined properly, should add something to the personal evolution of the art student. The art galleries should be visited, and reliable reproduction continually consulted until the mechanism of dark and light arrangements becomes familiar. When a masterpiece is to be studied in tone, its analysis should be conveniently small, and the student's attention should be directed to:

- (a) The proportion of the rectangle or containing shape;
- (b) the relative sizes of both light and dark areas;
- (c) the smallest number of tones that might be used in the analysis.

Three-tone consideration is usually sufficient for a simple analysis. It has been found that when an unlimited number of tones is allowed the critical faculty invariably goes to sleep, and a banal, imitative copying takes its place. What is wanted by the composer in regard to tone is structural capacity. It is an everyday experience to see a student draw a few outlines and then put colour on the spaces with little or no attention to tone-structure.

Cruel as it may seem to limit the tones to three in such an analysis, it will appear even more drastic to prohibit gradation. Gradation is useful, as a servant, for certain purposes: To carry tone in a given direction without additional forms; to quell certain insistent boundaries; to give subtlety to tones. Gradation has, however, a decided tendency to hide structural tones, and should be used only when urgently needed. It has already been pointed out that when one area is gradated there is no resting until the other areas get their share, and this trouble in itself should warn the student that complications are waiting to engulf, or to cover up, what promised to be the structural pattern.

If the student can truthfully say all the time, "It is the

tonal structure that I am studying," then gradation can be taken into account.

Every capable painter who finds tonal troubles accumulating in a picture goes back to simple structure, and in doing so ruthlessly cuts out gradations and steers steadily towards a simpler statement.

A very interesting and useful exercise is to select a picture with good distribution; then, on grey paper, draw two rectangles of the same proportion as the selected picture.



FIG. 34.



FIG. 35.

Within these rectangles draw the key lines—the boundaries of the tones. In the first put down the darks and lights as they are in the original picture—simplified, of course; in the other rectangle put down a black in one of the larger areas that is white in the selected picture. Now attempt to solve the new distribution whilst still retaining the shapes. The absolute reversal of the tones is not required, for a face area, or hands, or any other object that one feels should remain light can be made so in both examples. If this second attempt in any way rivals the first, progress is being made. Such an exercise (shown in Figs. 34 and 35) will effectually put out of action any ideas of copying.

It is assumed that the student will be attempting line and tone arrangements, entirely personal, alongside such

exercises as have been suggested. The real and ever-present difficulty will be found when tonal distribution of the kind indicated is to be linked up with natural observation. The student sighs and says: "The dark is really here *quite* out of place, and that light, which, according to one's sense of distribution, should be over there, has gone hopelessly astray." This kind of remark might easily nonplus both teacher and student, and the difficulty can only be solved by adopting the philosophical attitude towards pictorial art. The student and the teacher must sooner or later arrive at the mental conclusion that "the outside world is where the objects are—in the physical and material sense—and this rectangle or containing shape is the small two-dimensional space that lies empty and waiting for a personal arrangement of the cosmos!" The feelings with which we attack composition belong to our sense of the average rather than to the incidental.

CHAPTER VIII

TONE TRANSLATION

AFTER continual practice a time will come in the student's experience when tone distribution and tone organization becomes almost sub-conscious. It will almost always be necessary to try out several alternative tonal schemes until, at last, a version emerges that gives satisfaction. Now we arrive at a point where it is desirable to consider the ultimate medium in which the design is to be carried to its final expression. The tonal scheme is now organized in its simplest terms and it still remains necessary to adjust and amplify it to agree with the possibilities of the chosen medium. Providing the student has gained experience in the use of several alternative mediums, the problem of deciding the one to be used soon resolves itself. It is quite likely that a certain medium has been chosen even as the design was being organized, and a vision of the design in its appropriate medium has already asserted itself in the mind. Before embarking upon the actual or final production in the chosen medium, various modifications to the design will be necessary at this stage.

A few suggestions just here may be of service. Assuming that the student's mind is well stocked with forms and appropriate textures it is advisable to start straight away whilst the design is still "fresh" or "alive" and the desire to create is strong. It must be allowed, however, that most of the great artists are capable of keeping or maintaining their enthusiasm and inspiration over a period long enough to see the picture advanced to the maximum of their ability. A cat-like persistence—a powerful determination to make his design succeed—must become a fundamental part of the artist's character. A large number of students fail through getting tired of the design they started. Either their

TONE TRANSLATION

33

enthusiasm wanes, the design does not seem as good as it was, or some other design comes into view which, in its turn, grows stale. Whilst this state of things lasts progress in the arts for such students is very slow. It cannot be emphasized too strongly that most pictures owe the failures they exhibit to a flagging interest or impatience in these intermediate stages. A picture, apart from original ideas and inspiration, should also be a job of work, a product of good craftsmanship.

Let us suppose that oil paint is the medium to be used in the execution of the design. It will be clear that a colour scheme of the design similar in tones to the original tonal scheme should be attempted. This should be carried to a point where the colour organization is understood. Drawings for reference should be made to save all sorts of experimental fumbling when the final picture is begun. Even then, with all this care and forethought, troubles will occur but the chances of success will be greater. Similar tactics should be adopted if a water-colour is to be painted. It may be that the colour sketch will show the student that the dark and middle tones can be smaller in area than the first tonal scheme. A slight adjustment in this respect may be required to remove the heaviness which is inclined to occur. The limpid and flowing qualities of water-colour are desirable and modifications to ensure these characteristics may be necessary. A watchful eye should be kept on all edges and a cautious introduction of extra planes, receding, vertical, and horizontal, would give variety and remove the flatness. Every medium calls for its special form of treatment and the work only succeeds when such modifications are made in the pictorial translation. The first statement, the tonal sketch, is still of great importance; it stands as a symbol of organization of tone and should always be at hand. With a medium such as colour printing from wood blocks, or linoleum cuts, scarcely any modifications are necessary; at most a few gradations in the larger areas and a little more significance given to the "outline block." It is in wood engraving that the translation becomes more obvious. A

wood engraving is considered as a medium that prints in black, and something must be done to give the sensation of greys and whites that possess quality. If this medium of expression is undertaken it will require a knowledge of textures that, seen at a distance, resemble the greys and whites of the original tone sketch. Textures usually suggest the characteristic or representational forms on the objects concerned. For example trees, grasses, tiles, bricks, stones, draperies—in fact all substances—can be textured according to their nature. It is possible to ignore such characteristics and use a more abstract texture. Perhaps it may be that the artist is more concerned with planes, curved surfaces, and textures that help the three-dimensional or special character of a design. One thing is common to both treatments. The textures, abstract or otherwise, should conform to the first tonal scheme—or disorganization is likely to set in. The greys and whites in the tonal scheme must be translated without essential alteration of light and dark into textures. One of the most useful means of studying textures for wood engraving is by the use of scraper board. This is a card treated with a white clay-like substance and covered with a thin layer of black. A well-sharpened penknife or similar tool can be used to scoop off the black thus exposing the underlying white. A point lightly applied will make a thin white line. This method of approach, which is one of making white marks on black, is in its effect very different from making black marks on white—as would be done with pen and ink. Such scraper board experiments are very closely allied to the use of gravers used on box wood for wood engraving and can be recommended for intermediate stages in wood engraving. Figs. 36 and 37 illustrate such an experiment. If etching should be the chosen medium it will soon occur to the student that form must be given the prior claim. The lines that are used to translate the tonal factor of the scheme should always be less insistent than the lines that represent the form or constructive elements of the design. Every art master is continually being asked by students: "What direction should I draw these lines that represent



FIG. 36.

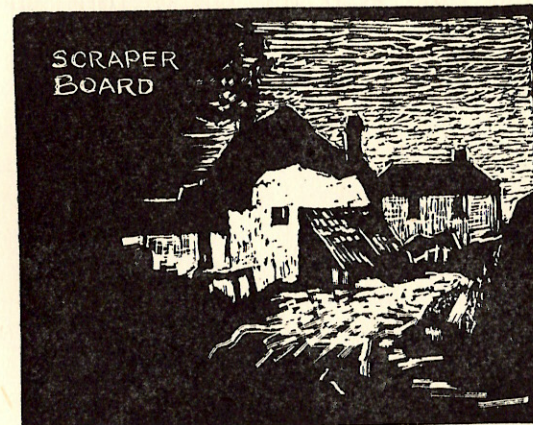


FIG. 37.

can only be answered by continually referring to the basis of the original sketch. If a scheme is to be translated in a

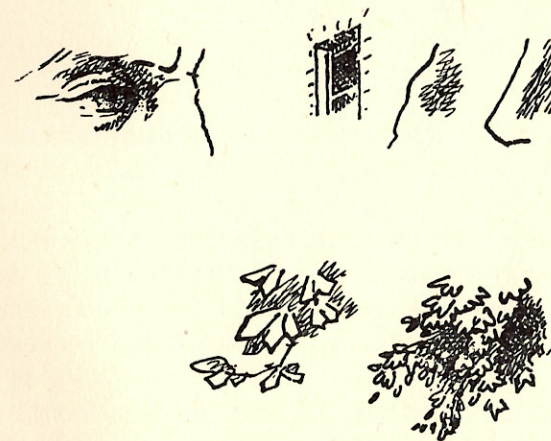


FIG. 38.

linear manner—if a pencil, pen, or needle is to be used—then the significant forms that tell the story must not be interfered with or obscured by adjacent tones consisting of

lines of equal significance. Tones must be rendered subordinate to forms. The diagrams in Fig. 38 give several illustrations showing the use of linear tones which at the same time keep the characteristic and essential forms dominant.

CHAPTER IX

LINE-DIRECTION

PERHAPS the best introduction to form-relation is the study of the static and the dynamic. Stillness and movement and the forms that suggest such states must be understood in some degree. We could conveniently call such study line-bias, line-direction, or general tendency of line.

Every student of the fine arts knows that horizontal and vertical lines suggest the static, the stationary—give stillness, quietness and peace, whereas lines of a diagonal character

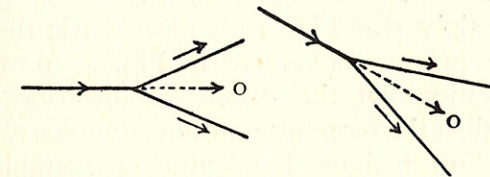


FIG. 39.

FIG. 40.

give a general impression of movement. Walter Crane and a number of other writers have laid emphasis on these facts. The student's own experience in the imitative and memory drawing of objects, both still and moving, must have brought this truth to his understanding. Such ideas may be considered as an introduction to composition, although they require expansion and additional analysis.

In Figs. 39 and 40, if equal forces are acting—"pulling"—in the direction shown by the outer arrows, the resulting direction of the combined forces will be O. O is the average direction (and when we speak of direction of line in pictorial composition it is the average that we have to deal with). A pyramid or a gable, in spite of its diagonal lines, is, in consequence, a static form, and does not give a feeling of move-

ment. In the two diagrams of plant-growth (Figs. 41 and 42) it will be seen that the average is approximately as shown. It is the average that matters in composition, for diagonal lines or forms obliquely placed do not in themselves suggest

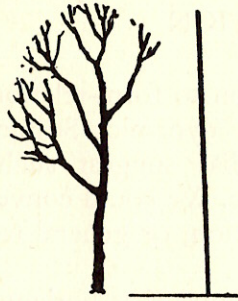


FIG. 41.

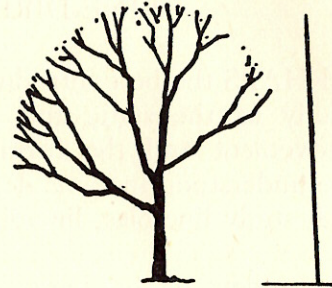


FIG. 42.

movement. Again, it is important that the student should be able to discriminate between Figs. 41 and 42, for it may seem at first sight that Fig. 41 is more static than Fig. 42. It is not the greater movement in Fig. 42 or the greater average obliquity, but the variety of direction in line of Fig. 42 as against the more monotonous symmetry of Fig. 41.

When the human figure is taken as an example the same law prevails. In the standing figure shown the monotony of uprightness is modified by variety of direction given to the different parts, yet the average is vertical.

In such examples as Figs. 43 and 44 the walking figure must not have the average of the vertical example or the drawing will not suggest movement. Such a drawing must accentuate the diagonals in the required direction, and the lines that might counteract must be quietened.

If 45° is taken as the maximum in such an exercise, it will sometimes help to estimate the movement. If the lines from verticality to 45° be used, with a bias of direction, then we suggest movement. The angles from 45° to horizontality, with a bias, suggest for the most part the stealthy, creeping movements. It must be understood that these remarks are only of a generalized character. Volumes attempting to explain and photograph such movements have been published.

PLATE XVI.



National Gallery

THE SHIPWRECK. BY J. M. W. TURNER.



THE CHARIOTS. BY WALTER CRANE.

Works of this character should be studied in addition to drawing from the actual objects.

It is an excellent, and at the same time amusing, exercise



FIG. 43.



FIG. 44.

for a number of students to try to draw a running figure. The winning example—the figure conveying the sense of greatest speed—is usually worthy of study in connection with directional lines. If we extend our inquiry a little farther and consider two or more figures engaged in some common activity, such as running, digging, swimming, and so forth, we shall find that reiteration of movement gives emphasis; it *does not* increase the actual movement.

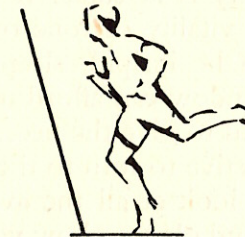


FIG. 45.



FIG. 46.

The boat-race is an example of emphasis of movement, but the number of oarsmen does not give a greater average movement. When two people are opposed to each other, as in wrestling or boxing, we find the visual movement (that is, the impulse) greatest when one of them gains the ascendancy, temporary or otherwise.

Before an analysis is made of Figs. 45 and 46, it will be clear that Fig. 46 expresses more movement. In Fig. 45 the main tendencies of line cancel out to some extent, but in Fig. 46 the average gives quite a definite slope. The horizontal line of the ground must always be considered as continuous, in which case it cancels out. If this is not understood the student may one day be confronted with a figure

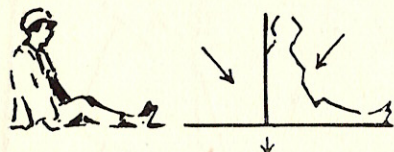


FIG. 47.

FIG. 48.

as shown in Fig. 47 and asked why the maximum movement has not been attained. The second diagram (Fig. 48) explains the difficulty.

How much activity can or ought to be given to any special motive is a matter of personal inquiry. It often demands considerable ingenuity to minimize or subordinate lines that interfere. Such lines can be kept unobtrusive by equality of tone or lack of accent. Plates 16 and 17 are worthy of study in this connection.

If vertical or horizontal lines are insisted upon we must expect quietness, stability and repose, but the student must remember that vitality is at stake. If such an arrangement is not redeemed by vitality of tone or of colour, then the result is inclined to be insipid, sleepy, and uninteresting. The stained-glass window can afford to be static in line, for the colour is expected to give the necessary vitality.

It is always instructive to turn to the masters and examine their procedure; to look at all the available single upright figures or portraits and observe how variety of line-direction has been used to give this vitality.

In the illustrations, Figs. 49, 50 and 51, we find that although the lines, when analysed, give verticality, yet the



FIG. 49.
Miss Ward and her Dog
(Reynolds).



FIG. 50.
Menippis (Velasquez).



FIG. 51.
Portrait of a Lady
(Velasquez).

variety of line-direction takes away our attention from such a condition and gives vitality. It is at this point that the casual observer is inclined to think that these things were drawn in such a manner "because they were so!" Yes, there is little doubt that the sitters had vitality, but most teachers are aware of the fact that in a life-class, although the model has similar vitality or variety in any so-called static pose, the drawings all have the tendency to become less energetic—i.e. more horizontal and vertical—as the work proceeds. It is so with the picture. To start with a few energetic lines is one thing, but it is quite another to complete the work whilst retaining them.

And it is the same with pictures where movement is required.

Let us now leave the world of derived forms and consider the lines in the abstract—lines in the condition of Figs. 52 and 53, where subject-matter is not too obvious.

The *whole system* of lines in a given picture must be considered from the standpoint of tendency or direction of line, quite independently of the representative factor. Unless the student can temporarily detach subject-matter and concentrate on the relation of lines as a whole to the rectangle, he is not composing, but blindly trusting that all will be well.

If a still-life group is taken, the separate objects, the background, etc., cease to be separate objects, and the whole as

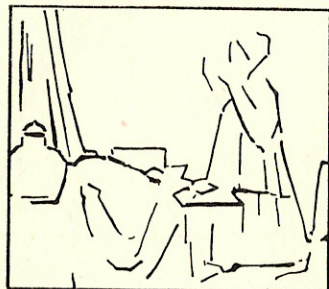


FIG. 52.

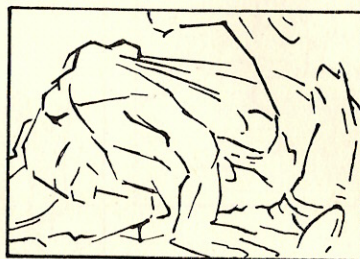


FIG. 53.

a "newly created entity" in a rectangular shape must be considered, otherwise we do not compose.

Select a few objects that associate themselves comfortably and a background of vertical lines such as cloth or wood panels. Let us suppose that the separate units are as follows:

The background.
The ground.
The bottle.
The cup.



FIG. 54.

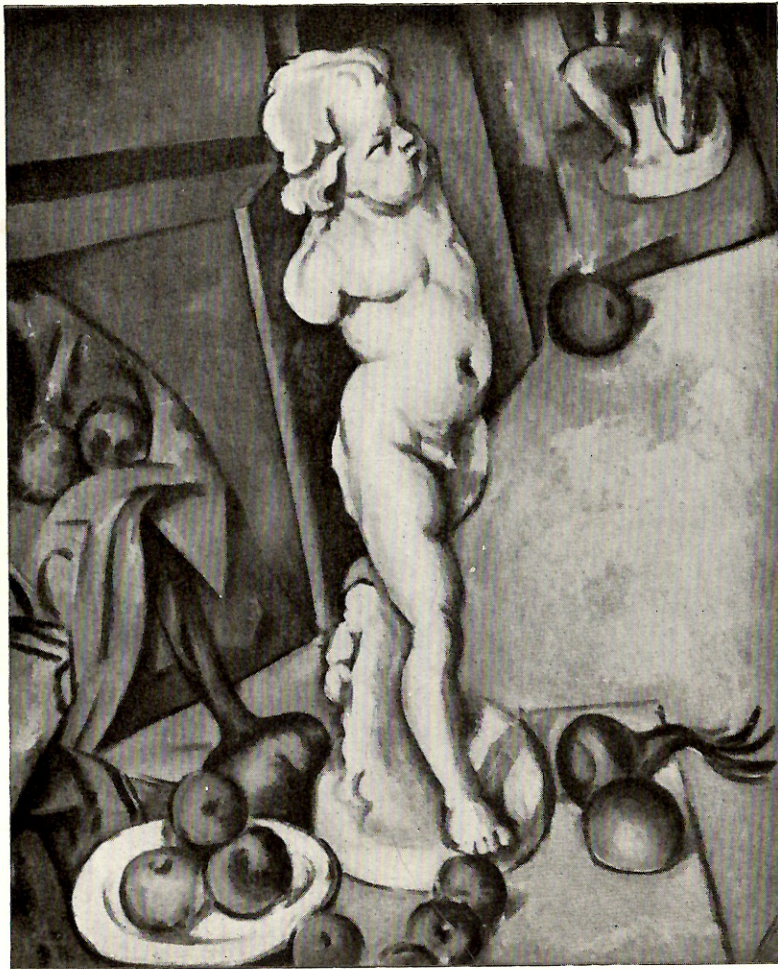


FIG. 55.



THE DEPARTURE OF SIR JAMES LANCASTER FOR THE EAST INDIES, 1594
BY SIR FRANK BRANGWYN, R.A.

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STILL LIFE. BY PAUL CÉZANNE.

Now place them near together to form a group. If the group has been arranged it must compose *as an entity within the rectangle*. If composition is to be considered, the units must merge into a "new entity." It might be as well to state that an entity is something to which nothing can be added or from which nothing can be subtracted without mutilation.

Do the resulting spaces feel monotonous? Are the objects arranged in such a way so that the lines give the maximum of vitality? Can the same objects be made to appear more full of vitality by altering the view-point?

Fig. 54 shows a static rendering, while Fig. 55 shows a more dynamic rendering.

Composition demands that direction of line, whether static or dynamic, should be considered independently of the separate units depicted in a given design.

Many of the modern painters are using the view-point of Fig. 55 largely because the direction of line is more "lively." Modern criticism has characterized the art of Cézanne (Plate XIX) and some of the more recent painters as "full of movement." If we regard lines as being to some extent independent of the units to be expressed, it can be said that static objects have, when painted, and consequently re-created, æsthetic "movement."



CHAPTER X

LINE-DIRECTION (*continued*)

THE relation of the straight to the curved and what we think to be a proper balance between them in a work of art depends largely upon our attitude towards life and things generally. Both the age and the environment in which an artist lives help to determine such a balance, and



FIG. 56.



FIG. 57.

the art student who has studied the so-called historical periods should be aware of a continual alteration or re-adjustment of such conditions.

Most students who give a bias of straightness to their designs usually do so from conviction, for they like the severity such lines imply, but a number of other students give a bias of curvature because the graceful, and sometimes the sweet and cloying, appeals to them (see Figs. 56 and 57).

If either bias can be considered a defect it can only be

corrected by a continued observation of life itself. In composition there can be no doubt that straight structural lines and squareness give the feeling of strength and security, but when their use is carried to extremes they convey sensations of harshness and crudity. Again, curvature may suggest vitality and grace, but when used to an excessive degree it gives a restless insecurity and weakness. The consideration



FIG. 58.

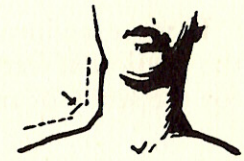


FIG. 59.

of lines that contradict and lines that agree or relate is closely allied to such a question. If we observe plant-growth we recognize the growing-out or evolutionary character of the forms. The lines radiate, and such lines are obviously related. The value of radiation in composition has been dealt with in the chapter on Perspective.

It is in dealing with the lines that contradict or oppose in the directional sense that sometimes a call has to be made for a reconciliation. To effect this, links or transitional lines are used. The tree trunk is a standard example of how vertical lines meeting the horizontal are often unified by the transitional lines of the roots (Fig. 58).

The neck of a human being in its relations to the head and trunk shows lines and planes that are transitional in character. We have only to spread our fingers to notice the interesting manner in which one line of a finger relates at the junction to the sides of the next finger.

It should be observed that the lines that offend most in a composition are those that cross without full contradiction. Acute angles are formed on each side, and such a discordant

condition, if not absolutely necessary, should be attacked by transition and elimination (Figs. 60, 61 and 62).



FIG. 60.

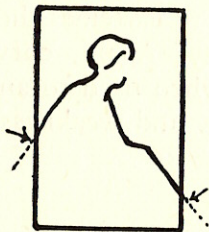


FIG. 61.



FIG. 62.

If we examine the human figure, we should notice that the relation of feet to the ground gives splendid opportunities for the study of transition. Such transitions are not quite so

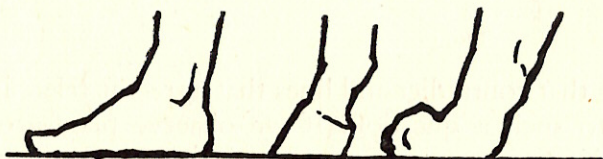


FIG. 63.

FIG. 64.

FIG. 65.

obvious as our previous examples, owing to the fact that feet and the ground are separate factors (Figs. 63, 64 and 65). The human figure and other organic forms furnish us with innumerable examples, but enough has been said to show why, when designers create new forms, such a condition of transition is bound to find occasional expression. The capital and base of a column in architecture are expressions of transition, or unifying factors between the vertical and horizontal lines (Figs. 66, 67 and 68). Unrelated

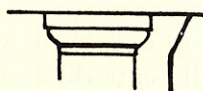


FIG. 66.

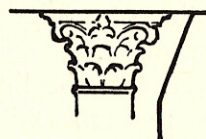


FIG. 67.

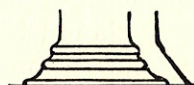


FIG. 68.



LINE CONTINUITY IN FIGURE COMPOSITION.
FROM THE FILMS.



BOTTICELLI.



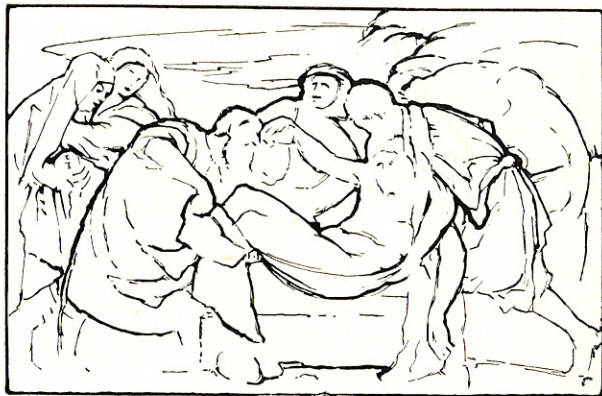
BEATO ANGELICO.



VELASQUEZ.



REMBRANDT.



TITIAN.

LINE CONTINUITY IN THE OLD MASTERS.

planes are unified similarly by transitional planes. The framework and panels of a door are often related by mouldings—indeed, mouldings are for the most part transitional factors.

Opposing lines without transition give a sense of structure or uncompromising strength, and they can often be left unrelated in a picture. Such a condition gives variety and vitality to the more continuous and reposeful quality of the related lines.

Transition, then, establishes a continuity between lines that are otherwise unrelated, and if we observe the figure once again we shall find that the perception of continuity is one of the great essentials in drawing from the life. We should not only be able to draw a line defining the figure;

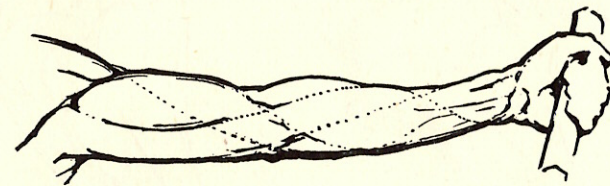


FIG. 69.

we must in addition be able to grasp how all the parts interrelate. The trunk, limbs, the head—indeed, the whole figure—seem full of such continuity.

It should be noticed in the illustration given how such lines, after intervals, carry on a similar direction. Sometimes we can actually see such cross-transitions; at other times we must rely upon our eyes to see across the gaps. Life-drawing, apart from proportion and execution, seems to demand this capacity to preserve continuity in order to secure organic unity (see Figs. 69, 70 and 71).

This sense of continuity forms part of the very essence of composition, both in figure and landscape designs. If two, three, or more figures are to form a composition we must treat such groups in precisely the same manner as if we were drawing on a figure. The group becomes a new entity, and continuity of line must be our means of relating the factors in this new creation.

The student who wishes to design figure compositions will find it necessary to study the figure in a special manner. A mere copying of what comes to the eye will be of little use. The figure must be analysed, bearing in mind the continuity of line, and when this has been grasped, he must

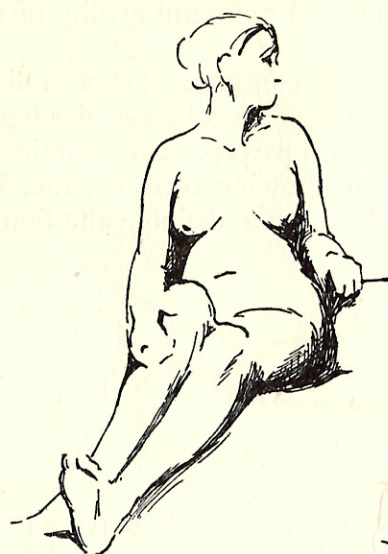


FIG. 70.

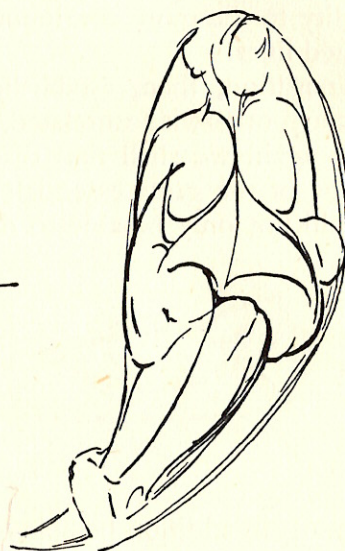


FIG. 71.

extend such continuity to combine figures in groups, and finally the continuity of line must extend to the environment. The outstanding point to remember in regard to the environment is that its forms must help the composition: there must be no confusion of intention. The surrounding conditions can give an element of repose, relief, or stability, while the figures are required to have a strong directional bias, or again the environment may be used to stimulate or enhance the general impulse of the figures. In either case it will be possible to secure an agreement between the lines of the figures and the surrounding forms.

Exercises should be devised for the purpose of studying continuity of line and the other factors that make for success

in figure composition. We must endeavour to persuade a few friends, or the least self-conscious members of a class, to group themselves as naturally as possible. Three persons will be sufficient for our immediate purpose. Two might be seated at a small table playing chess or cards, eating, or holding an animated conversation, whilst the third person stands near one of the seated persons as an interested spectator. This arrangement is merely a suggestion for an early exercise, one of the thousands of other possible schemes.

It is our business as composers to observe that, as the interest of the three persons becomes more intense, the continuity of lines will be the more complete. As the interest becomes less and the mental binding-links disappear, the lines that relate will become less and opposition lines will take their place. This principle should permeate all our figure-combinations. Individual units should on no account receive special attention or be drawn in a different manner. The most useful method of attacking such a group would be to draw a simple sweeping line that embraces the whole group, then a few lines to decide positions, together with a massing of tone until gradually, with a watchful eye on continuity of form, the scheme takes shape as a whole.

When such exercises have only two figures they are apt to become troublesome because of divided interest. Unity can be achieved by giving one figure the predominance (Fig. 72). The principal person can be arranged to face the spectator, or be given the advantage of position, such as standing on a step, or in the frame of a door, a picture, or an archway. The occupation may provide some arrangement where superiority is suggested, or, again, such a double interest can be unified by a third interest (Fig. 73). In a class of enthusiastic art students, however, it can be safely assumed

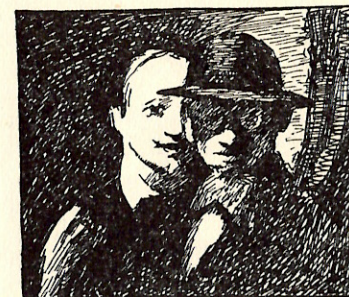


FIG. 72. Hans van Marées; Portrait of Lanbach and Himself.

that sufficient ingenuity will be found present to cope with such troubles (Plates XX and XXI).



FIG. 73. Shearing² (Millet).

a contour or continuous line of a satisfactory character arises we can attempt to make other subsidiary contours live up



FIG. 74

After many efforts the student will begin to realize the value of a dominant contour. By a dominant contour is meant a line that delineates the principal figures and objects and goes across the containing rectangle that limits our picture, and such a contour is given in the accompanying sketch, Fig. 74. If such a contour asserts itself during the struggle for expression, it must be immediately encouraged or developed, for it is one of the most useful factors in a composition. Its value lies in the fact that it keeps the units tied and allows us to develop our æsthetic grasp of the problem, for once

to it—that is to say, they can interlock with or reiterate it. If the main contour includes a part of the environment still greater progress can be made. When a person who is unacquainted with the technique of composition is asked to illustrate any subject—for example, a nursery rhyme—he usually proceeds to draw the individual units, such as Mother Hubbard, the dog, and perhaps finally the cupboard, as separate conceptions.

The moment we can rise to the execution of an all-embracing contour, such as might happen if, with scissors and black paper, we could cut a silhouette of such an incident, we are beginning to compose.

Although line and form possibilities must on occasion be discussed in an abstract manner with such terms as direction, radiation, and continuity, it must never be forgotten that actual ideas are strong, fully developed, and already containing these incidental qualities.

Ideas do not come as a straight line near a curve or as lines that oppose, with here and there a transition, but as a complete entity from an image world, somewhat vague in parts, perhaps, but nevertheless complex.

The student should attack the problem of æsthetic expression by rapidly recording such ideas with all their complexities before they fade. Such efforts may be inadequate to reflect the ideas, yet it is only when something of this sort has been attempted that our composition technique can be of any value. The student may help to increase his emotional range by visiting theatres or cinemas for purposes of study, in addition to the organized subjects of class-work, but it is obvious that over and beyond such aids the perception of life itself must come. The commonest event of everyday life is full of æsthetic significance to the observant student.

Mere harmony of lines or violence of pattern will be unavailing if our perception of inherent life is lacking.

CHAPTER XI

RECTANGLES AND THEIR SUBDIVISIONS

ALTHOUGH environment and the nature of materials, have been powerful influences in the design of many things, yet, when all conditions of use and material have been allowed for, there is still required an added touch of nice judgment—the hall-mark of individual taste. We feel that the craftsman has, critically or whimsically, adjusted the object to his æsthetic needs long after utilitarian conditions have been fulfilled. The size of a rectangular doorway in relation to the building, the proportion of a tower to the rest of a cathedral, or the subdivisions of a gate or a window

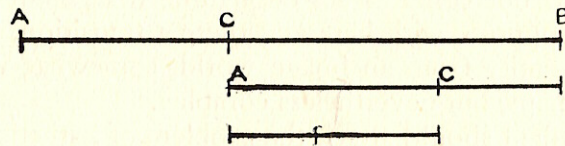


FIG. 75.

must often cause no little æsthetic consideration in the minds of the designers responsible for such work.

Pictures and decorations being designs on a plane surface are more concerned with proportions of line and two-dimensional areas and their relations than with cubic content. Such works, being valueless from the utilitarian point of view, consequently possess unlimited licence in proportion. Even then a common consent as to agreeableness or otherwise of certain proportions is felt. Pythagoras was reported to have held a rod at its ends, horizontally, and asked his friends to put a mark on it in a position that gave the feeling of a satisfactory yet unequal proportion. He found, as we shall find if we experiment, a striking unanimity of opinion. The diagram, Fig. 75, shows the proportion. It seems as if

RECTANGLES AND THEIR SUBDIVISIONS 53

we place C in such a position in order to avoid the obvious third on the left and the uncertain half on the right. Pythagoras found that by placing the length A-C on the remainder C-B the proportion remained as before. The short division, when placed on the longer, yields the same proportions to infinity. How such apparently irreconcilable proportions in line became reconciled eventually in area, how the irrational became systematized, is found in the early history of mathematics. It is certain that this proportion

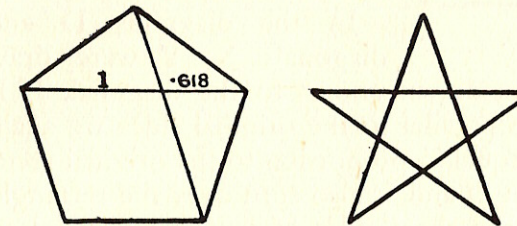


FIG. 76.

was used centuries before the Pythagorean incident, though probably intuitively. Yet from that time it became an intellectual concept, and after many disappearances and discoveries Kepler brought it to prominence by writing an enthusiastic dissertation on "the golden measure."

Three-legged compasses have been devised to secure this golden measure between two points. In modern times researches into the animal and plant world have revealed the proportion to be a natural ratio. In his work *On the Interpretation of the Phenomena of Phyllotaxis* Dr. A. H. Church, of Oxford, has written at length on such ratios.

The intersection of two diagonals of a pentagon (Fig. 76) gives the ratio geometrically, and some have supposed that the five-pointed star which the disciples of Pythagoras wore was a symbol of their knowledge of such matters. Quite apart from speculation, such a division, the ratio of 1 to 1.618 approximately, is to be found as one of the great proportions in almost every picture.

A contour is given to show how it may be used (Fig. 77). Now that the application of "irreconcilable" proportions

has been discussed it will be necessary to make a few geometric statements regarding the placing of rectangles within each other or by the side of each other, whilst the rectangles agree proportionally.

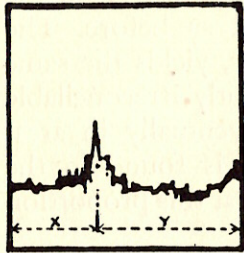


FIG. 77.

Thus, in the diagrams A, B, and C in Fig. 78, by means of the constructions shown by the dotted lines, we obviously make the inner and outer rectangles similar in proportion.

In the diagrams D and E the diagonals X, Y were drawn and a straight line drawn at 90° to the diagonal. If lines were now drawn parallel to the original sides we again produce rectangles equal in proportion to the original rectangle.

Diagrams D and E also turn over the rectangle—that is, we obtain the short sides of the new rectangles on a line parallel with the longer sides or the original rectangle.

It is true that such proportions could be obtained arith-

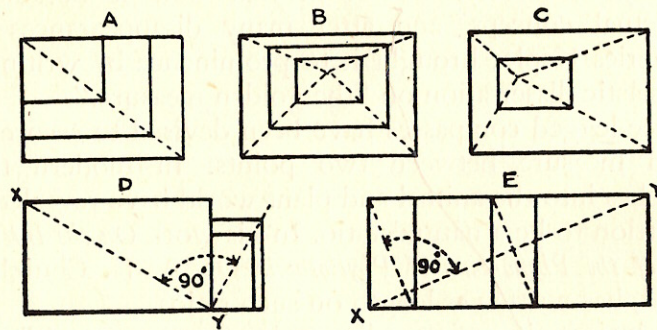
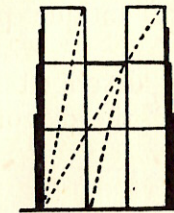
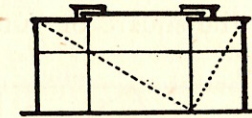


FIG. 78.

metically, and it may be asked, "What has all this geometry to do with composition?" Consistent rectangles, or rectangles of similar proportions, have always been considered a unifying factor in a composition, for we can, by this means, gain variety of area with unity of proportions.

A great deal has been written in works on architectural composition regarding consistent rectangles and how their

use makes for unity. Two examples, adapted from J. B. Robinson's *Architectural Composition* (published by Batsford), are given in Figs. 79 and 80.

FIG. 79.
Notre-Dame, Paris.Fig. 80.
Villa Borghese.

The question of what proportion constitutes a satisfactory rectangle is still remaining unanswered. In this connection great credit is due to the researches of the late Mr. Jay Hambridge, who was granted a research fellowship at one of the American universities. In his works, *The Greek Vase*, and his periodical, *Dynamic Symmetry*, he published a very convincing account of the efficiency of square-root rectangles and how such rectangles could be used to determine the design and good proportion of ancient and modern vases, ornaments and buildings. His written work, mathematical

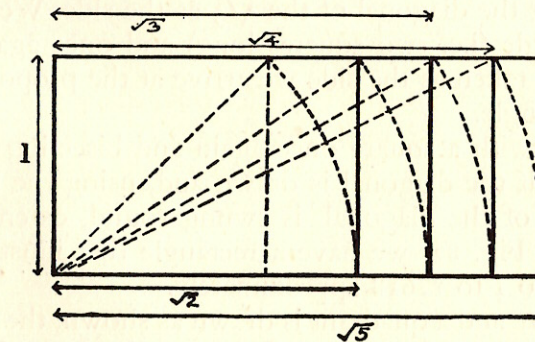


FIG. 81.

in character, as such research must be, was concerned with showing the superiority of square-root rectangles over the ordinary static or obviously dimensional rectangle. Subtlety

of proportion in its mathematical relation was the object of his research.

The books referred to should prove interesting to the student with a mathematical interest in design, for they analyse many choice specimens of antique pottery and jewellery.

Square-root rectangles are easily described as follows: Starting from the square or "unity," the diagonal is taken

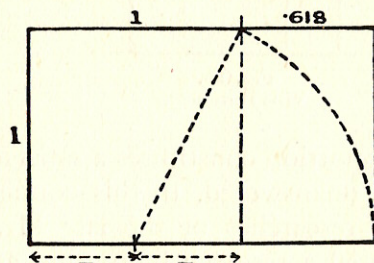


FIG. 82.

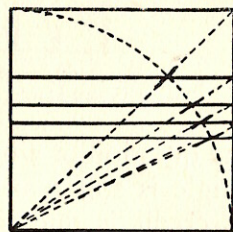


FIG. 83.

as the long side, as shown in Fig. 81. Such a rectangle is called a $\sqrt{2}$ rectangle, for the length of the long side would, if used as the side of a square, be twice the area of the original square. The same idea holds good if we use the diagonal of the $\sqrt{2}$ rectangle as the side, and we obtain a $\sqrt{3}$ rectangle, again using the diagonal of the $\sqrt{3}$ as the side. We derive a $\sqrt{4}$ rectangle (i.e. two squares long) and once again if the diagonal is taken as the side we arrive at the proportions of a $\sqrt{5}$ rectangle.

Starting with a square once again and bisecting the base as shown, if the diagonal is drawn and, using the bisection as a pivot of the diagonal, is swung round, extending the base, as in Fig. 82, we have a rectangle that illustrates the natural ratio 1 to 1.618 approximately.

If a square and a quadrant is drawn as shown, the diagonal cuts the quadrant at a point giving a $\sqrt{2}$ rectangle on the lower portion; a diagonal from this new rectangle cuts the quadrant so that a $\sqrt{3}$ rectangle is formed below, $\sqrt{4}$ and $\sqrt{5}$ similarly follow. The resulting line divisions of $\sqrt{2}$, $\sqrt{3}$, and $\sqrt{5}$ are undoubtedly subtle, and, in consequence,

useful. Another point in favour of such rectangles is the subtle proportion of the "remaining" shapes after a square-root division has been made. Fig. 83 shows this construction.

In all rectangles, whether "dynamic" or not, can be found subtle positions that might be termed "eyes."

A rectangle with a diagonal and a line from an adjacent corner cutting the diagonal at right angles, as shown in our "reciprocal rectangle problems" D and E, is given in Fig. 84. The point where the diagonal is intersected can be called the "eye" and lines parallel with the sides are drawn, which

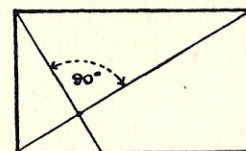


FIG. 84.

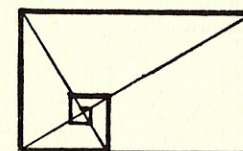


FIG. 85.

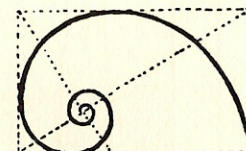


FIG. 86.

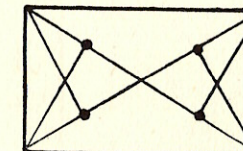


FIG. 87.

approach, but "theoretically" never reach, such a point. Such a scheme is illustrated in the shell, where the spiral line has been substituted for the cornered line (Figs. 85 and 86).

Every rectangle contains four "eyes" (Fig. 87), and it should be clear that rectangles with rectangular divisions will contain an additional number of such "eyes." The analysis of many pictures would prove that the foci or central point of interest of forms, tones, and colours are often placed on one of these spots or "eyes."

Most artists, however, rely upon their critical feelings in questions relating to satisfactory proportions, although it is just conceivable that a master might arise who, possessing both mathematical and æsthetic qualifications, would proceed to design a miracle of subtle proportion by means of geometrical constructions.

In designs where rectangles are clearly defined such as we find in architecture and furniture, mathematical certainty derived from æsthetic experience is obviously of great value. Rectangles in their pure state, however, are rarely used in pictorial expression, and so we are compelled to sense or feel intuitively when the divisions and proportions give satisfaction. Research on the lines indicated may help to train or stimulate our intuition, and it is clear that when rectangles are to be divided we must aim at subtlety. Obvious fractional divisions, such as one-half, one-third, or one-quarter, soon tend to become tiresome. They are found out

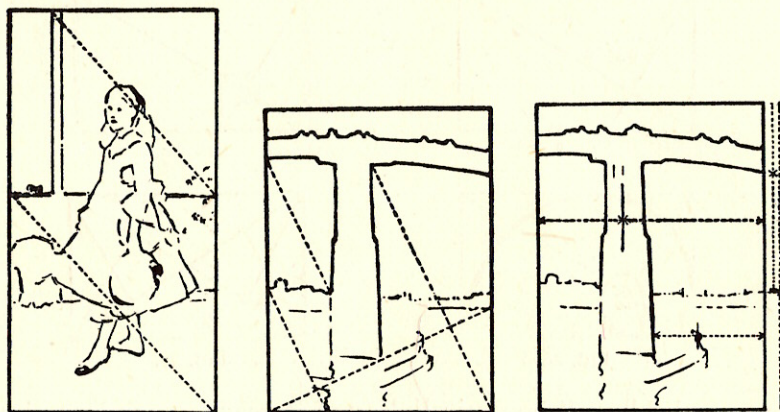


FIG. 88.

and quickly cease to interest. When rectangles possessing similar proportions occur within a picture they reiterate and in consequence give coherence and unity to a design.

The student's attention is drawn to such similarity of proportion in the rectangles of Whistler's *Battersea Bridge* and his *Miss Alexander*, shown in Plate XXII and Fig. 88. Many other examples could be shown to illustrate this reiteration.

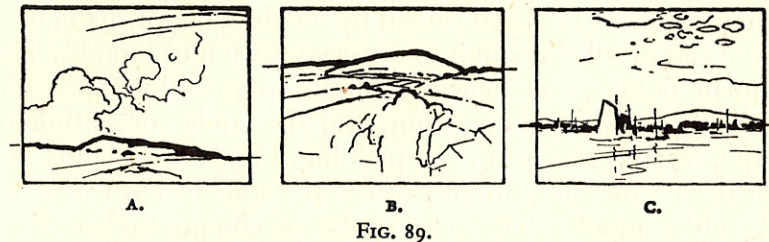
Then comes the question of scale in such enclosed rectangles. Scale has already been insisted upon as a rhythmic law in the discussion on tone, yet it may not be out of place, in a consideration of relative rectangles, if it is again pointed out that complete and lasting satisfaction arises only when the scale of rectangular areas descends by "nice" stages, and



National Gallery

OLD BATTERSEA BRIDGE. BY J. MCNEIL WHISTLER.
ANALYSIS IN RECTANGLES (SEE ALSO FIG. 88).

perhaps this remark implies that we are intuitively conscious of ratios. In practice it is an excellent plan to pin up in a place where we can sit and occasionally look at it any sketch in which a scale of proportionate rectangles occurs. Sometimes our somewhat indirect observation will locate an offending proportion when perhaps our actual direct concentration has failed. This method may perhaps be personal, but it is worth trying when any compositional difficulty occurs. It may appear out of place in a book on composition to advise the student to "sleep on it," but it is common experience that a pictorial scheme begun with great enthusiasm does not



always live up to its promise the next day. We discover, perhaps, that the outside or containing shape does not quite suit the enclosed design; it may appear to be too long to give us the necessary expansion upwards, or it may be that the containing shape is nearly square and is inclined to bother one. If it really looks square our doubts are resolved, but if it looks a doubtful square we speculate on which are the longer sides, and our attention has been diverted from enjoying the contained design. Apart from relative proportions, the question arises of giving each subdivided rectangle its proper form-content. This will be understood better if we take a rectangle and draw across it a division of pictorial form, with a suggestion of land and sky.

Diagrams A, B and C in Fig. 89 show three positions of this division. Apart from the question of exact proportion of sky to land, we must determine which section is to contain our chief interest. Diagram A suggests a possible proportion if the sky is to be the subject of our expression. The largest

area should, if possible, be occupied by the chief interest. The contour placed as in Diagram B will be advisable if the town or the area below the contour is our real motive.

Diagram C might be a possible position for a line of interesting objects around the contour itself, the remaining areas being sky and water. There is always a danger in keeping the interest confined to the smaller areas.

If the chief forms occupy the larger areas in as bold a manner as possible, we might avoid having our work described by that uncomfortable and somewhat derisive term "small in design." A similar difficulty frequently arises when the student attempts figures in a landscape, and many compositions have been ruined by the drawing of the figures large and detailed enough to cause confusion of interest. The human figure, even when small in composition area, can easily become too interesting, and the landscape, although large, degenerates into mere padding. Figures in a landscape usually become important because the student has forgotten his initial impulse. The great landscape composers kept their figures small—sometimes mere spots of colour—with a few suggestive forms to give vitality.

When the student finds the human interest becoming too strong in a landscape, a piece containing the figures should be cut out and considered on its merits as a figure composition. It could then be re-designed, making the figures reasonably occupy the whole space. Figs. 90 and 91 are examples of bold design.

A travelling collection of drawings and paintings by Viennese children attracted considerable attention in this country a few years ago. It would seem that in certain exercises the only stipulation was that the figure should nearly touch the top and bottom of the space to be filled. This condition made the figures important in scale, and the remaining shapes were easily filled with apples, flowers, baskets and other accessories that were in keeping with the figures. This, of course, gives to such figures their greatest possible area for a containing rectangle, but there is no finality in such a rule. It is just as likely to cramp the move-

ment of a figure or to suggest a jack-in-the-box ready to expand if the space or edge of the frame were to give way.



FIG. 90.
(From Chassériau.)

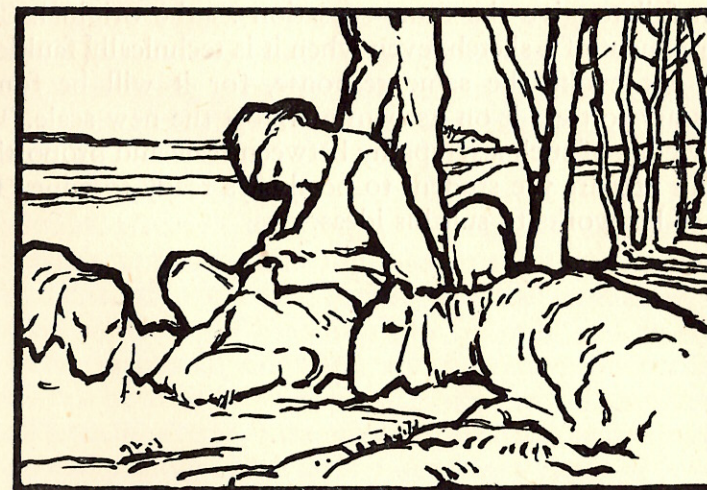


FIG. 91.
(From Segantini.)

In the design of a portrait, tying the head to the top edge is, perhaps, better than having it a little too low, which gives us the sensation that the sitter is slipping down and out (Fig. 92). The profile usually demands more space in advance than behind, otherwise we give the sensation of departure on the part of the sitter (Fig. 93). So many psychological factors enter into our designs that it might be said that every idea, every picture, is best at a certain size and proportion, together with the contained shapes.

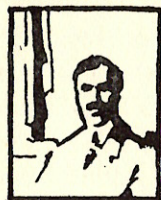


FIG. 92.



FIG. 93.



The enlargement of a picture or its reduction is a highly critical matter, for so much depends upon what is to be expressed. For this reason small reproductions of pictures often fail to give the same sensation as the original. The enlargement of a sketch, even when it is technically faultless, does not evoke the same response, for it will be found necessary to treat it on its own merits at the new scale. The knowledge of such a sympathy between scale and proportion should prepare the student to be always ready to adjust the size of his works to suit his ideas.

CHAPTER XII

PERSPECTIVE AND COMPOSITION

NO attempt will be made in this chapter to teach perspective. There are many text-books on the practical application of its laws. It is our business as students to understand perspective, and then, having mastered its principles, to use it to express our ideas.

Perspective might be termed the logical rendering of three-dimensional ideas on a two-dimensional space. It gives apparent depth and imparts to the units the correct size and aspect in relation to the supposed distance within the picture. Many nations have ignored perspective in their art, and several present-day artists consider its importance greatly over-rated and tending to obscure the true æsthetic sensations that it is the business of art to express.

It was during the early Renaissance that formal perspective began to be considered necessary (although many of the Oriental works and some of the paintings from Pompeii show an amazing grasp of some of its essentials), and it is then that we find the real urge towards naturalistic representation.

From that time until quite recently perspective has held an important place in art training. Leonardo da Vinci left statements regarding the angle of true vision, outside of which distortion occurs. Turner was the teacher of perspective at the Old Royal Academy Schools, and he is said to have discoursed obscurely about domes and shadows. There can be little doubt that whilst objective art is practised it will have to submit to the laws of recedence, or perspective. In the composition of pictures it becomes a factor in limiting the size of relative areas. This is a very disturbing factor sometimes, yet when recedence is required it gives one form of intellectual satisfaction and consistency to the work.

Let us see how the designers in the pre-perspective era composed. If a narrow stage with a vertical background be considered we have the usual environment, and if on this narrow strip we arrange our figures we find, perhaps, the simplest conditions under which pictures can be composed



FIG. 94.

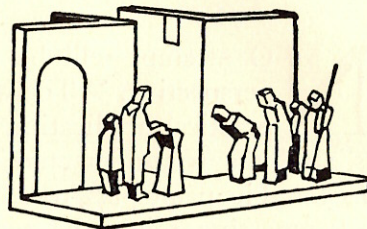


FIG. 95.

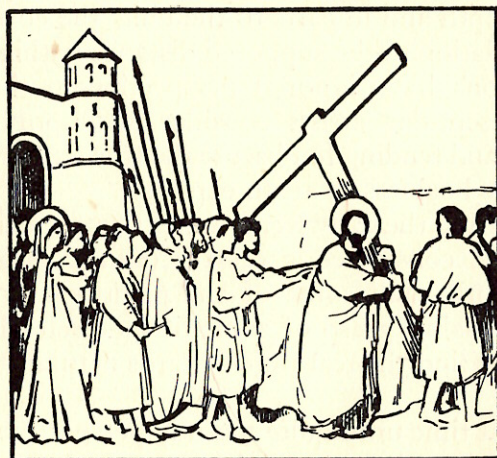


FIG. 96.
Arena Chapel, Padua (Giotto).

(Figs. 94 and 95), reminding one of the sculptured friezes of the Greeks.

Figures under such conditions were often given a fair amount of solidity or rotundity. The interest was usually centred on the personality rather than environment. When we regard these frieze-like compositions we find that the interest is close to the surface and almost two-dimensional in character, with drawing, colour and spacing (Fig. 96).

These pictures give pattern considerable freedom, and it is no surprise to find that artists have from time to time gone back to such conditions to free themselves from the trammels of atmosphere and depth. Under such conditions of design combinations of colour can be arranged that would be incongruous and altogether lacking in plausibility in the atmospheric rival.

It is interesting to note that as perspective became more sought after the background of the pictures became the field of operations whilst the figures still remained packed up close to the spectator.

At last, after many experiments, the distance became manageable. The figures varied from close up to mere specks on the distant hills, the dome-like character of the sky became imperative, and at last line combined with pattern and colour recedence, giving us the illusion of open space instead of the original two-dimensional flat surface decoration.

If we discuss the practical use of perspective, a few outstanding facts must be taken into account.

First of all, every picture into which perspective enters must be assumed to have a possible horizon or eye-level. This might be in the outside world—the distant sea horizon or the far edge of the level moor. On this theoretical line all receding horizontal lines find their vanishing-point; also all lines parallel to each other on this level ground apparently converge on the same point on the eye-level. Every student is familiar with such diagrams as A, B and C in Fig. 97, and is usually very much alive to the rules governing the measurement of such receding lines. In practice, however, these rules become so modified by curves, hills and valleys that only a few outstanding principles can be conveniently applied.

One important idea is that when we require depth in a picture, so that the mind of the spectator goes in and becomes enveloped on all sides with forms and atmosphere, the suggestion of a way in must be given to the flat surface of the picture. Line and direction of form are the principal

agents in giving this illusion. The pathway, the stream, the sides of houses, pillars, ceilings, floors and many other well-used devices are familiar to all who look at pictures.

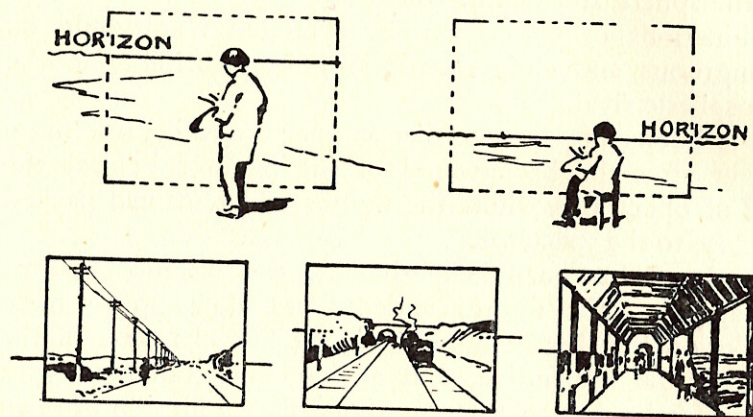


FIG. 97.

Yet even when the student possesses the knowledge of perspective necessary to give the correct recession it does not follow that such lines and planes are what we term "composed." It will be convenient to return once more to our flat surface, and without any thought of receding lines or perspective consider the nature of radiating lines; for radiation is common to both types of expression, two-dimensional and three-dimensional.

To state a familiar truth briefly: We know that when lines are arranged so that a concentration of direction is suggested

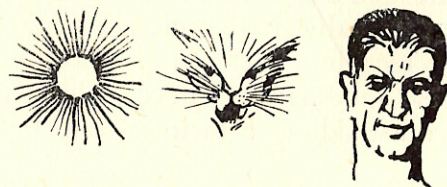


FIG. 98.

the eye follows and is tempted to remain at this point of radiation, the rays of the sun taking us to the source of light, the radiating lines in the face of the human being taking us

to the bridge of the nose and eyes, the radiating lines of most animals taking us to the mouth (Fig. 98).

To come to the abstract idea, it can be said that the lines that concentrate in direction without actually reaching the focus compel us to follow them. Converging lines that do not meet carry the eye to the point of convergence.

Leonardo da Vinci's *The Last Supper* (Fig. 99) is the

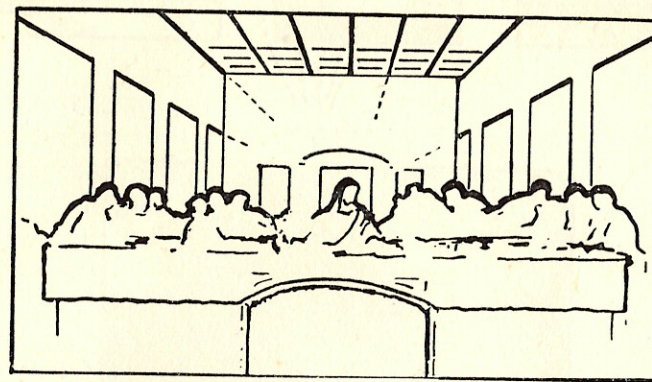


FIG. 99.

classic example of the use of radiation (quite apart from the idea of perspective, which merely gives plausibility). Here the lines point to the Christ, giving pre-eminence to the most important figure. The lines are the edges of rafters, but the effect is the same as radiation on a flat surface. This fact is of vital importance in composition, for it is obvious that unless we control perspective we are not composing, but actually disintegrating our ideas. Let us take an extreme example. Suppose a scheme of radiation to be arranged as in our adjoining diagram (Fig. 100). This concentration of

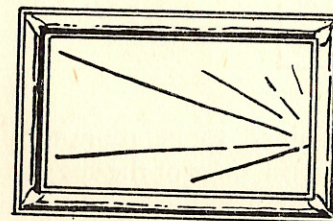


FIG. 100.

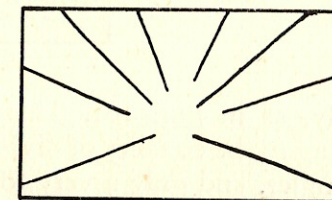
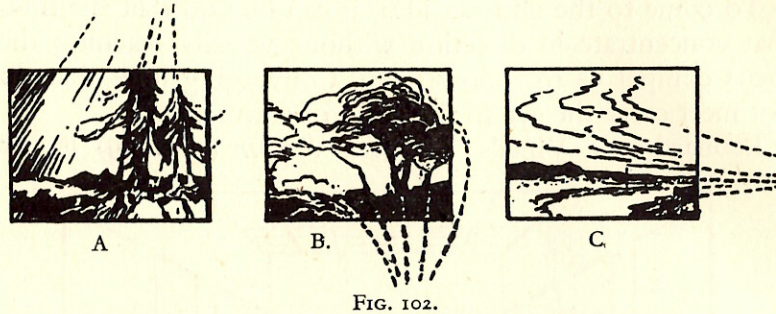


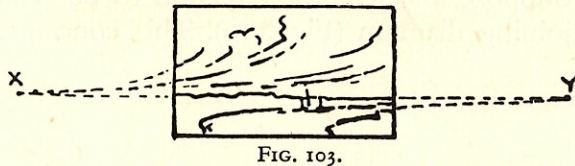
FIG. 101.

the radiating lines causes the spectator to exclaim, "What a nice frame!" and as the attention has been drawn to it by the



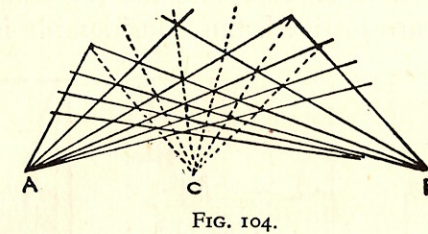
From Corot.

lines within the contained shape the remark is not irrelevant. Such a radiation may be correct perspective, but it is bad composition. Again, let a point of radiation be placed centrally, as in Fig. 101. This is inclined to be monotonous



owing to the equality of division on the sides of the suggested triangles, and only a very formal composition would justify its use.

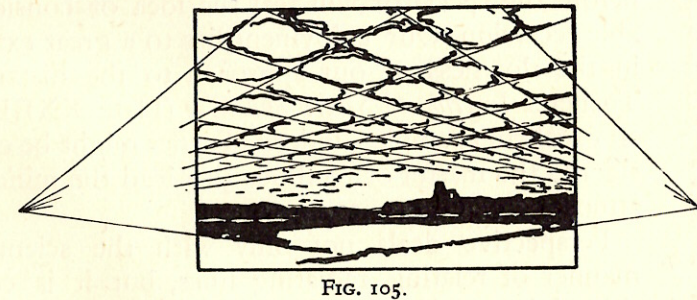
The point of radiation can, however, be placed outside the rectangle, and as long as the distance is sufficiently great



we are not tempted to run away after it. Its value is important as a unifying factor. A, B, and C in Fig. 102 are examples.

Now let us suppose that a picture is designed as in Fig. 103. This suffers because the lines are no longer unified as in C (Fig. 102), for the clouds drifting towards X and the banks going towards Y are no longer related. Hence we can say that if two points of radiation are to be used successfully they must relate to a third. A diagram will make this clear. In Fig. 104 the two points of radiation, A and B, cause by their interlacing the third radiation C. This is often seen in clouds, fields, and tiled pavements (Fig. 105).

One of the commonest faults of the beginner is to arrange



a set of radiating lines the focus of which is of a negative character. Compare A and B, Fig. 106. In A the lines have no objective. A beginner who discovers he has fallen into this fault should ask himself, "To what am I leading with my radiating lines?" and this will clear his intention. Com-

position, after all, is clear intention. It is, however, possible that a road or a river, seemingly interminable in character, is to be interpreted. In that case the radiating lines going out to infinity are justified, but considerable invention and

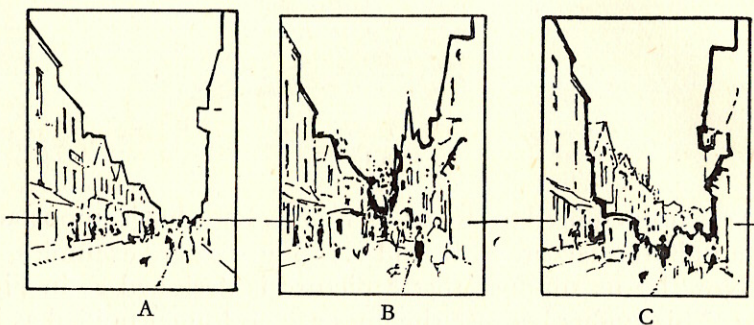


FIG. 106.

ingenuity will be necessary to cause the delay of arrival. In B we arrive at something of importance. C shows a non-perspective solution, for the emphasis given to the contour distracts the attention from the distance.

In the diagram (Fig. 107) 1 to 2 appears longer than 2 to 3, and in a similar manner we must cause interruption—plausible interruption—of all kinds before the spectator will feel the idea of considerable recession. Our enjoyment lies to a great extent in the slowness of our approach to the distance. Turner's *Junction of Severn and Wye* (Plate XXIII) is an excellent example—indeed, Turner might be considered the master of methods that lead the mind to atmosphere and evanescent forms.

Perspective deals not only with the scientific manner of relating radiating lines, but it is concerned with giving scale—that is, the correct size of one object in relation to another. In the more abstract forms of composition scale is not determined by perspective laws. Thus if we are dealing with two-dimensional patterns as shown in Fig. 108, although scale exists, such relations can only be discussed by plane geometry, but the moment

recession is suggested the work comes under the yoke of perspective.

The shape A in the illustrations of Fig. 109 is known to be a rectangular shape with B, C and D actually equal to it. Then, after A has been determined, B, C and D are mechanically marked off and made “consistent” with A. This is one phase of perspective. It should be noticed that such

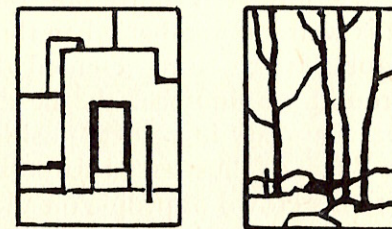


FIG. 108.

a condition, which is necessary if we are faithfully to represent recession, imposes a considerable curtailment of our freedom of choice, inasmuch as certain shapes are inevitable.

Whilst accepting perspective, artists have always had a suspicion and a dislike to being driven in the matter of consistent formal perspective design. Turner kicked over the traces when in his *Dido building Carthage* he used the shadows from *two* suns. Whistler effected a compromise between the two-dimensional free patterns of the Eastern artists and our more naturalistic Western art. In his *Mother, Carlyle*, and *Miss Alexander* and other works we find a

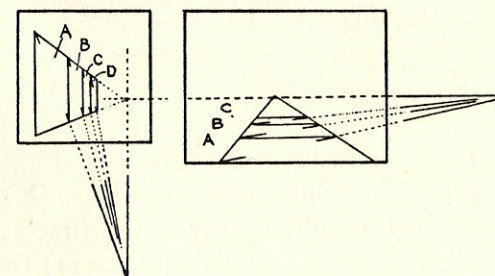


FIG. 109.

deliberate “closing up” of the recessional planes, and in this one respect we have something like a return to Giotto. But although Whistler’s work perceptibly approached the

two-dimensional type, his colour and tone still retained their three-dimensional character. Pioneer though he was, he did not achieve the complete victory.

We now return to our question of perspective scale. It is well known that when the spectator is standing up and figures are to be represented also upright on the same level ground we find that the heads remain level, although the feet may vary in vertical position. The adjoining diagram A in Fig. 110 illustrates this perspective law. Under this condition a crowd of people on a level surface will also conform to such a law, the slight differences in height being allowed for. Diagram B shows this. In composition we must attempt

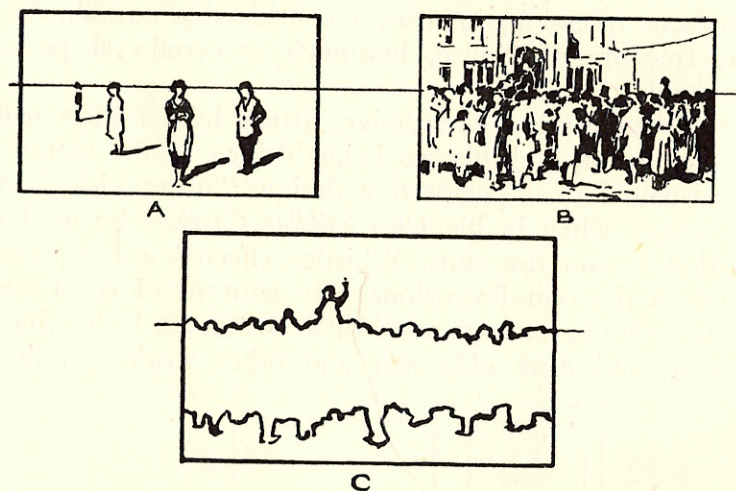


FIG. 110.

to keep this knowledge in a secondary position. Take the contours 1 and 2 in Diagram C and Plate XXIV. Their position and variety should be given the first attention. In the next two diagrams (A and B in Fig. 111) the spectator is level with the person shown, but the room is high in one case and low in the other. Both diagrams are accurate as far as perspective is concerned, but the real problem for the student of composition is not the accuracy of the scheme (that is easily ascertained), but whether or not the figure is

PLATE XXIII.



JUNCTION OF THE SEVERN AND WYE. BY J. M. W. TURNER.



A COMPOSITION. BY HENRI RIVIÈRE.
(TO SUPPLEMENT FIG. 110.)

the correct size for the idea we wish to express. Does it occupy as much of the picture as we intend? When this has been decided perspective can enter into the scheme.

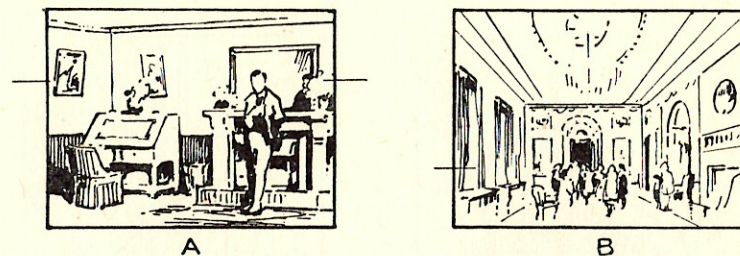


FIG. 111.

The writer remembers, many years ago, an occasion when students were requested to bring a composition for the criticism of the master. The subject that had been given was "Moses before Pharaoh." One student who was most efficient in matters relating to perspective handed in a picture something like the accompanying diagram, in which it will be seen that the architectural features had been given undue importance (Fig. 112). The master silently cut out the portion shown in the adjoining sketch, and having pinned this small piece up he discussed it as a new composition.



FIG. 112.

If we witnessed a subject where the emotions were strained almost to their breaking-point, we should undoubtedly be watching intently the figures themselves to see the outcome of the challenge; they



FIG. 113.

would be given our undivided attention. The cinema-man would give a "close-up." If the subject had been "A Ceremony in the Temple" the proportions of the composition referred to above would have been more excusable.

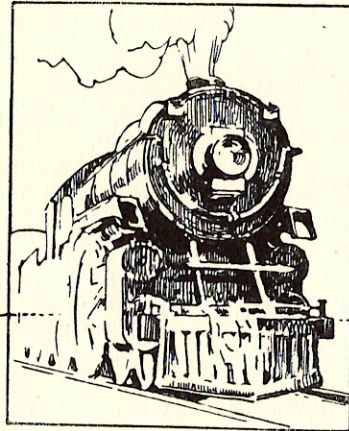


FIG. 114.

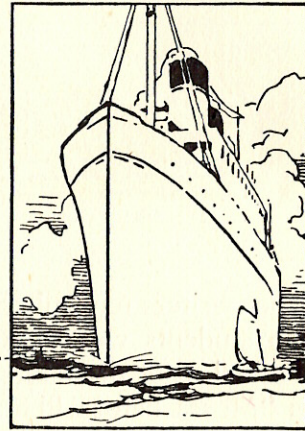


FIG. 115.



FIG. 116.
Don Allessandro del Borro.
(Velasquez.)

Having acquired the habit of compelling perspective to serve our turn, let us turn to Fig. 113.

This is a case where the spectator is assumed to be on a very low eye-level, such as lying flat on the ground, his eyes level with the line X-Y. An arrangement of this character makes the figures loom up like giants. This is a scheme that has been given a lot of attention in recent times, especially in commercial art.

It is common in playbills and posters, especially the posters advertising liners and railways. The three sketches shown in Figs. 114, 115 and 116 are sufficient to show how the gigantic can be suggested by this means, but here again discretion must be observed. A portrait done in this manner is apt to suggest unnecessary egotism—a lofty but ludicrous superiority, amusing enough as a playbill, but inclined to be unjust to an individual. Velasquez used this method in his well-known *Don Allessandro del Borro*, where he painted a great braggart stepping upon his enemy's flag (Fig. 116).

CHAPTER XIII

RECESSION

WHEN all the efforts to give recession to a picture have been made it should be remembered that it is the two-dimensional design that holds the key to success. If the shapes are unfortunate on the flat—that is to say, unsatisfactory in the two-dimensional sense—no

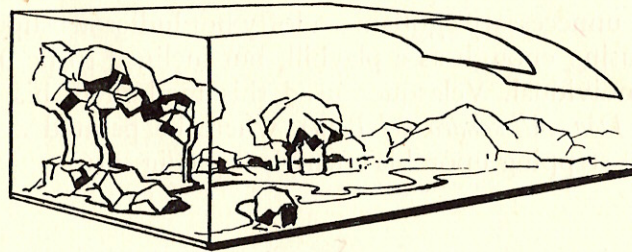


FIG. 117.

amount of zeal in dealing with the qualities of recession will make a good composition.

In order to grasp the plan of a recessional picture let us assume that we are looking at it as a side-elevation with the objects arranged to agree with the front view. The diagram, Fig. 117, suggests an expanding box or dome-like recession, and it is the formal or informal arrangement of objects on such a stage that calls for our attention. In the early part of the chapter on Perspective attention was drawn to pictures that have a slight recession, as shown in Figs. 94 and 95, and to the fact that the figures were arranged with a background of close-up buildings or sky. The figures held the interest and the recession was slight. It is when we go farther inwards that the real troubles connected with depth begin to assert themselves, and the problem of the "way in" begins.

RECESSION

The novice often commits the error of allowing the attention to be distracted by means of divergent paths to two unconnected objects within the picture (Fig. 118, A). This duality of intention causes confusion. Many tracks may be used if they tend to converge towards the main interest (Fig. 118, B). Sometimes a composition possessing interesting sides lacks a greater interest centrally. A hollow space is suggested that carries the spectator inwards to a feeble and uninteresting distance. On the stage the wings may be inter-

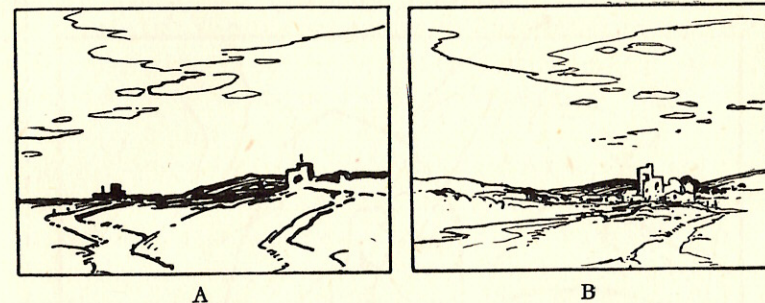


FIG. 118.

esting, but it is the central portion occupied by the actors that holds our attention.

This line of thought brings us to the conclusion that every recession should justify itself. Opposition planes or screens that go from side to side of the picture have the tendency to arrest recession. When the areas of such obstacles are large we are tempted to examine them two-dimensionally, and if their forms prove interesting we are delayed still longer. In practice objects of this kind are accompanied by transitional planes. If they still prove unsurmountable they may be reduced in area until finally they become mere undulations and no longer impede the eye. Our obstacles, then, should be so arranged that they give the desirable delay in our approach to the chief interest.

It must not be forgotten that plausibility enters largely into the problems of recession, for comparative sizes are inevitable, and certain near objects are sometimes known to be far more powerful in tone in comparison with the

tone of what we wish to be the chief interest, which lies farther within the picture. By reason of such a rivalry it will be clear that the greater the recession of our main interest the more delicate and critical the task of leading the eye to such a position will be. If the objects that retard are too attractive we stay, and when they are not attractive enough we reach the distance too soon.

Many devices have been adopted to ensure the desirable

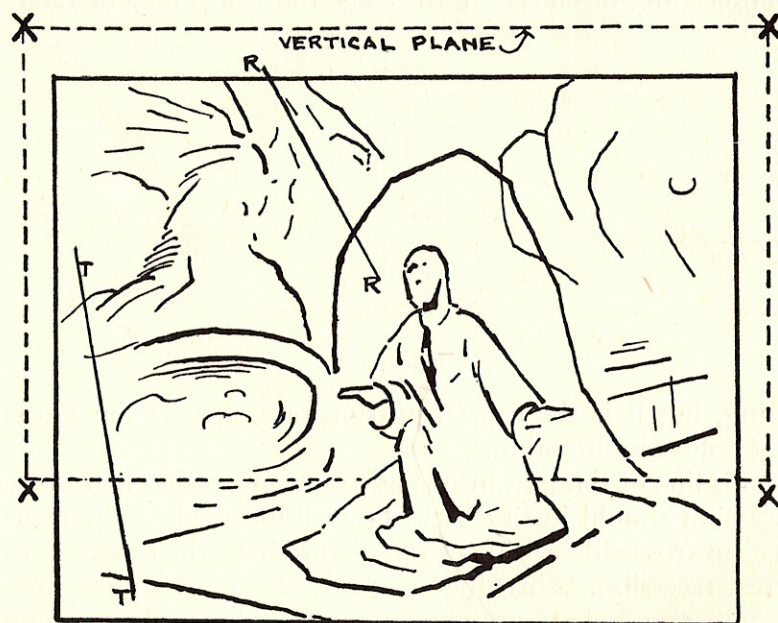


FIG. 119.

progress, and many of the books on landscape painting offer advice on this difficulty. The serpentine, or winding line, is perhaps the best known. It may indicate a road, a stream, a flock of sheep, or clouds, but no matter what objects are suggested it is the to-and-fro character of the lines that delays. This method, although well known and well tried, is not always employed intelligently, for it is liable to be used in too obvious a manner, without breaks or subtleties and the variety that is so necessary in informal

design. One of the most interesting solutions of recession is often found in etchings, and sometimes attempted in the art work of Orientals.

Line is used for all the shapes that are selected to occupy the rectangle, but it is mostly in the distance that the forms become specially interesting. The near trees, buildings, and figures are suggested by strong characteristic forms often with little or no tone, and the more remote objects are given special attention with regard to delicacy of form and tone, so that we are encouraged to look at the more satisfying distance. (Plate XXV, a drawing by Rembrandt, gives one aspect of such a convention.) This compromise, which is suitable enough for such a form convention as etching, lacks solidity if it is attempted in a more robust medium, such as oil-paint.

Most painters attempt to obtain correct tonal relations in addition to form, and we frequently find loose handling or a summary treatment with emphatic brushwork on the nearer objects. This treatment diminishes to a more delicate execution as the recession increases. This facile and fashionable method, which demands great cleverness of execution, is inclined to divert the attention from the more satisfying qualities of good design. Canaletto and many others have shown that methods less turbulent in character may still succeed.

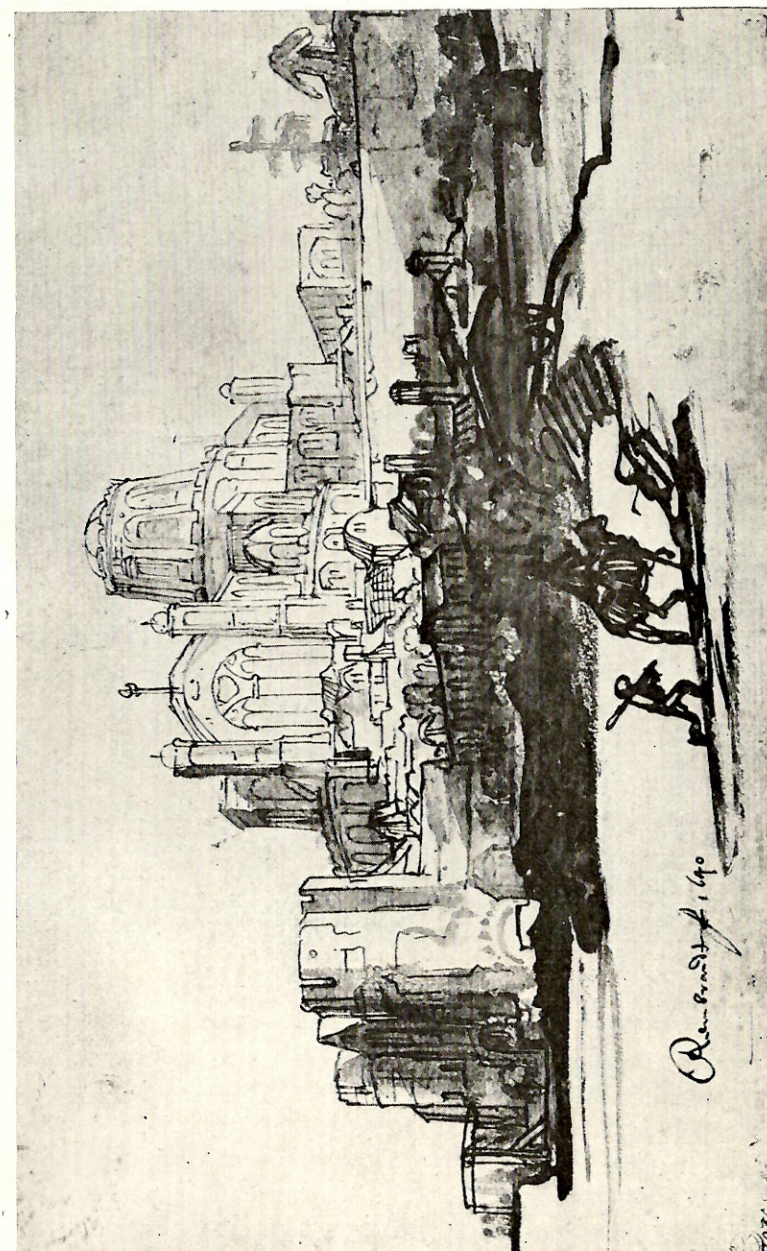
When we turn our attention to figures and their arrangement we find that the range of effective recession is usually far less than in landscape. The distance becomes an accessory to be used either to enhance the movement of the figures or to act as a foil in giving repose.

If figures are grouped across the picture the contour becomes very important as shown in the Giotto design (Fig. 96). Sometimes it may be an advantage to substitute "advancement" for "recession" or to arrange the design to work backwards or forwards from a given plane or position. What is of vital importance is that the scheme should be organized in the simplest manner to achieve a satisfactory design.

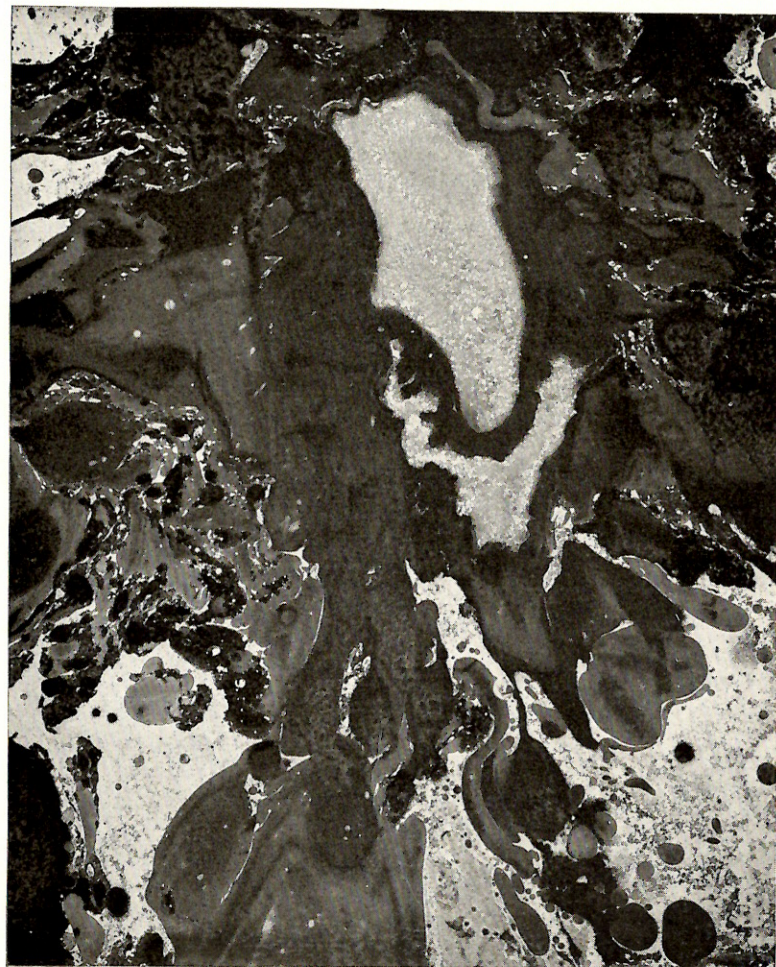
Let us examine the El Greco composition shown in the frontispiece. In order to simplify the analysis we will assume that a vertical plane is placed as shown in the diagram Fig. 119. The four corners of this plane are at XXXX. It will be seen that the figure in front of this plane consists of volumes and planes that advance towards the spectator. On the vertical plane itself is a rock-like shape behind this principal figure, whilst behind the plane cloud-like forms recede. To the left of the figure is an elliptical shape, the edge of a hollow or concave space containing the sleeping disciples. Above this elliptical shape the winged figure is found to be convex or conical in character. It will be seen that volumes and planes are arranged extending in opposite directions with rounded (solid), hollow, and flat variations. This diversity gives the composition a remarkable vitality and sense of space. In spite of all this diversity, unity is secured by emphasis of tone on the central figure and by the use of the diagonals (the tree and the ray) T.T. and R.R.

Many other aspects and qualities could be discussed regarding this composition. Perhaps it ought to be said that we find El Greco juggling with the properties or compositional units without too much reference to the naturalistic probabilities. In this way the artist has achieved intensity of feeling and allegorical expression. With practice the student should become proficient at arranging the factors or units of design, and a compromise between nature and art should come into being. A desirable and individual approach can be developed by this means. A critical study of the masters should inspire the student to ask himself, "What is the compositional aim in this picture? What kind of design factors have been used or rejected?" Such considerations in addition to the study of nature will greatly assist the progress of the student.

PLATE XXV.



DRAWING BY REMBRANDT.



RHYTHM IN FLOATING MATERIALS.

CHAPTER XIV

RHYTHM

"Once we have command of rhythm we have command of the world."—NOVALIS.

WHEN all the factors that individually make for good composition have been considered, a vitalizing impulse, which we will call rhythm, is still required. It is important that every artist should attempt to recognize and make use of such a powerful aid to composition.

Rhythm in the limited sense means flow—in music, the movement in musical time or the periodic recurrence of accent. It gives a succession of impulses, sounds, and accents in poetry, and in the larger sense it can be felt in Nature, in the succession of the seasons, in our progress through life from childhood to old age. The word "rhythm" has become almost significant of life itself. It is in the dance that the artist is first attracted to rhythm in the form sense, for the dance combines both the measure of time and movement in space. Rhythm cannot be expressed until it is experienced; a course could be arranged in which movements of the body were given special attention in combination with drawing.

If we run, run and turn, run and twist, move our arms, hands and wrists, it is possible to experience curves, spirals, forms with corners and angles, wave-lines, expansion and radiation. A course such as this might take us nearer to coherent expression and form a track away from the dull, patient copying of objects. Even this would be only a beginning, for the mind must be taught to observe the vital and characteristic form-content that lies at the back of external things.

Rhythm in art gives a movement or condition of line that takes hold of all kinds of apparently irrelevant details and gives them coherence. As rhythm in verse helps the mind to hold on to ideas in a collective manner, so rhythm in form helps us to grasp and relate many otherwise separate conceptions.

Let us start with simple or easily-observed rhythms such as may be seen when we consider movement, or impulse, against the adjacent conditions. If permanganate of potash crystals are dropped into water and shaken we see red streaks curl and wind themselves in the water. The forms in movement will be alike in general character. Salts that effervesce when dropped into water give a violent upward movement. Cigarette smoke in a quiet room shows us fantastic ascending forms of a consistent character. If colours mixed with oil are dropped on to the surface of a basin of water they float, and a splash or directional push of the water at the edge sends the materials floating on the surface into a pattern in accordance with the impulse given to the water. If paper is carefully placed flat on the surface of the water the patterns can be transferred and examined at leisure. Plate XXVI is an example. The old-fashioned wavy and spotty end-papers used in bookbinding were obtained by a modification of this method.

The consistency of these patterns should be specially noticed. When we observe the larger forms in Nature this sense of the characteristic must still be retained. The sea, with its undulations, its crossings and re-crossings, is an excellent example of consistent impulse. When the sea is remembered we become aware that behind the incidental there are the characteristic or constant forms, and it is these forms that are the most important to the artist. If we attempt to draw the conditions of form mentioned, our hands, wrists and arms should feel a kind of freedom. We are necessarily drawing from memory, and the line flows. The unimportant incident is submerged in the characteristic, and there is no hindrance. It is when the factor of time slows down that the student's efforts relax.



HOKUSAI AS A GARDENER. BY KUNISADA.

There is just as much characteristic impulse in the distant line of mountains as in the sea, but often the incidental forms gain in importance—are given undue expression—and the majestic sweep is interrupted.

The above statements might be thought to imply that memory-drawing is advised as a method of approach. This is certainly not the case, for what is really required is the sense of rhythm when we are faced with the actual objects. The freedom that is sometimes shown in memory-expression only proves that the sense of rhythm is embedded. It must become a conscious activity.

Every year, as the seasons go by, we find the rhythm of up-springing, of coming out, in the spring, and in the autumn the falling back or going in of the vegetable kingdom. If we really sense such movements when the snowdrop, the crocus, the daffodil, and the other spring flowers are coming up we ought to be conscious of a tremendous upward thrust—a rocket-like activity. Ridiculous and undignified though it might seem, it would pay us æsthetically to become imaginatively spring-like in our physical activities—to become flowers, to burst forth and attempt eurhythmic expression. Such characteristic impulses and their attendant forms seem to be submerged by detailed scientific knowledge. The nature of the bulbs, the sheath, and the shapes of individual parts, with their botanical names, are well known to students, and may be useful in their own way, but they must not be allowed to take the place of the consciousness of the vital movement.

We find the student drawing external individual shapes of a snowdrop, the forms being drawn without any appreciation of impulse. The training suggested would draw lines upwards in the manner indicated in Fig. 120, just as one would see a rocket go up and break into stars. After all, the impulse is not dissimilar, for if a plant like the snowdrop grew quickly under our eyes the beforementioned conception would be readily understood.

The finished picture rarely equals the sketch because of the difference in the time factor. The impulses slow down

and become side-tracked: the picture becomes a machine that often does not work.

It may be thought that consistency of form with the necessary variety in repetition would meet the requirements of rhythm. On reflection, however, it will be seen that what is required behind consistency and repetition is a conception of characteristic impulse. We must draw our forms in the direction of our thoughts, and this impulse

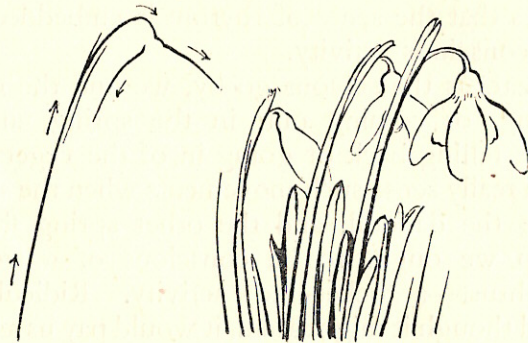


FIG. 120.

should knit the smaller characteristics of individual forms so that the decoration shall become an indivisible whole. If we carry these ideas into the examination of an epoch it will be found that we lighten up archæological research in a remarkable manner, for it seems as if the great periods in history were in favour of, or limited to, certain characteristic rhythms; for instance, the heavy wedge-like rhythm of the Egyptians manifesting itself in architecture, costume, and jewellery, to the commonest detail; the clear-cut, precise, rectangular, and vertical characteristic of the logical Greeks; the constructive rhythm of the Romans shown in their semi-circular or dome-like works; the ogee rhythm of fourteenth-century architecture, as shown in St. Mark's; and in our own country we find the pointed rhythm of the mediæval builder, which Mr. G. K. Chesterton so aptly describes as the symbol of the church militant. It must not be forgotten that such spear-like forms go right through the

life of the period: the steeple hat, the monk's cowl, the weapons, the pointed shoes and sleeves.

It has been thought by some that the religious life or the prayerful attitude of such times dictated the outward forms from some inner impulse. Later we find the uplifted beseeching attitude silhouetted in windows and doors has given way to one of thoughtful challenge in the earlier forms of the Tudor period. The posture of the arms on a



FIG. 121.

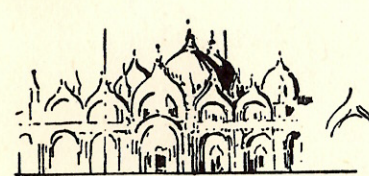


FIG. 122.

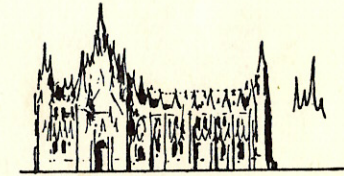


FIG. 123.

table with the head resting in the palms certainly suggests the Tudor arch. The costumes, again, agree with this impulse. The diamond-shaped Elizabethan impulse could in its turn come up for discussion. These remarks, however, need not be taken as conclusive, but rather as the basis of a suggestion for a new line of æsthetic research. Figs. 121, 122, and 123 indicate three forms of architectural rhythm.

It must not be assumed that only such forms as those mentioned were used, for every other form was probably used in some measure. It is the bias or rhythmic impulse in form of a given age that is referred to. Whether such a bias as that suggested is agreed to or not, it is clear that it is the individual impulse that should assert itself in all good composition.

Every individual has his varying emotions and impulses, and it is the business of the painter and the artist generally to understand the æsthetic equivalent of what they see—its line, tone, and colour-equivalent—in order that impulses may be adequately expressed.

If we examine pictures, bearing rhythm in mind, we shall find that all the great artists, either consciously or subconsciously, obeyed this rhythmic impulse.

The colour-print by Kunisada, illustrated on Plate XXVII, is full of a wide-angled rhythm. An attempt has been made

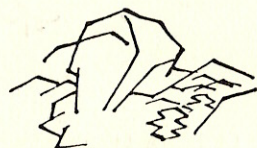


FIG. 124.

in the accompanying small illustration to analyse the impulse (Fig. 124).

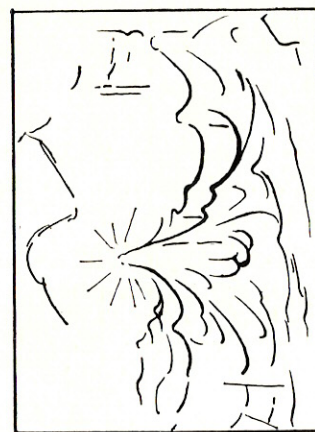
The illustration on Plate XXVIII shows the well-known etching, *Christ healing the Sick*, by Rembrandt. Here we find a wave-like rhythm culminating in the figure of the Christ.

On Plate XXIX three compositions from Turner's *Liber Studiorum* are given, and the student should find no difficulty in following the analysis of impulse shown in each small illustration.

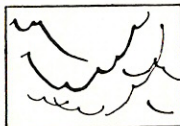
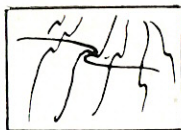
It may be said that a special sense is required to recognize rhythm; yet it is the author's experience that every earnest student, sooner or later, develops such an appreciation of impulse.

Rhythm in art is sometimes called "style" or "indi-

PLATE XXVIII.



CHRIST HEALING THE SICK. BY REMBRANDT.



RHYTHMS FROM TURNER'S COMPOSITIONS.

viduality," and in its outward manifestation such terms may be correct.

In any case it can be confidently asserted that when what is here called rhythm is fully appreciated we are getting nearer to the true heart of composition.



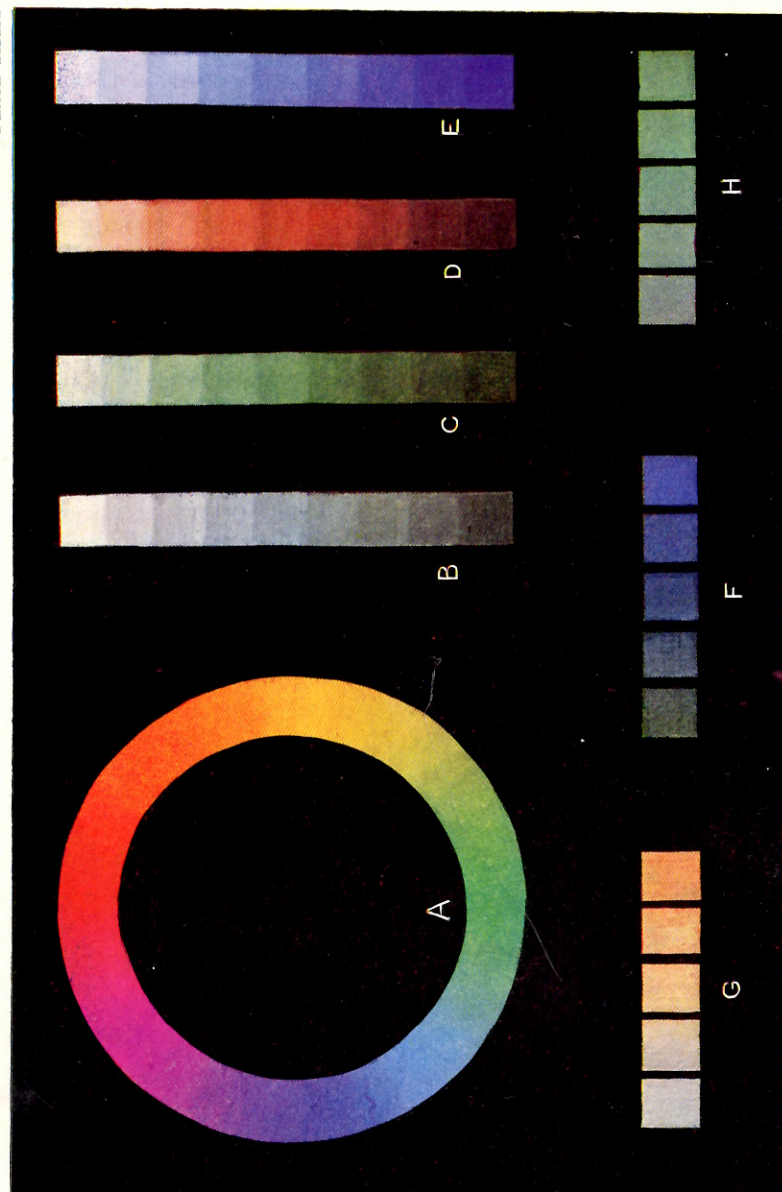
CHAPTER XV

COLOUR

THE mystery of colour, with its fluctuating phenomena, has been a favourite subject for speculation from the earliest times, for it has been, and still is, associated with rituals, feasts, rank, and the whole gamut of the emotions. To-day it occupies the attention of the physicist, the psychologist, and the artist.

Whilst the physicist examines the laws governing its appearance with delicate instruments at hand, ready to measure its varying aspects, the psychologist notes its effect on the individual mind. The one measures the stimuli whilst the other observes the response. Perhaps the artist, who generally understands least of all this intellectual aspect of colour, is the person who really enjoys it, for it is his task to enter the world of colour, to examine its beauty by the subtleties of his feelings, and, having examined, it becomes his further task to create afresh, with very limited means, something of its orchestration.

Over a hundred years ago Goethe observed a veritable fear of everything scientific on the part of the artist, for he remarks: "Hitherto among the painters there has been a fear and a positive aversion to all theoretical study of colour and what pertains to it. . . ." Yet the old masters were profoundly interested in speculations regarding colour, and in more modern times Sir Joshua Reynolds left us discourses that showed his keen interest in its qualities. When the present-day student attempts to grapple with what is known about colour, with what has been thought on the subject in the past, together with present-day research, a mighty pile of books looms up dealing with its varying aspects, mathematical, optical, chemical, and psychological, with here and there a dissertation on "the beauty of colour,"



COLOUR NOTATION
A. The Ring of Hues
B, C, D and E. Tone of Hues
F, G and H. Saturation of Hues

and occasionally a volume is found where colour in relation to certain crafts has been considered.

It is small wonder that the art student turns away from the prospect of such prolonged research, and decides that the best and quickest way is to open the paint-box and by means of trial and error find out what most readily gives satisfaction. What is really required is a conception of colour that applies to every medium and occupies a secure position behind their varying qualities. Such a conception should allow the utmost freedom possible, and should enable the student to locate quickly the weak link in a given colour-scheme. It must be a working proposition so simplified that no reference-charts or any paraphernalia are necessary. It will be seen that if such a scheme is to be made possible only a very few aspects of colour can be essentially useful, and the rest should be treated as a side issue.

For example, the art student must not confuse light with pigment. Pigmental colour is the medium to be used, whether mixed with oil, water, gum, egg, or wax, and whilst the student is concerned with painting there is no necessity to be burdened with theories concerning light: its wave length, its combinations, and the other properties and laws that specially govern it—indeed, all that can be reasonably asked of the scientist resolves itself into two questions:

(1) What can be said regarding permanence of colours in their manufacture, mixture, and application?

(2) What is the simplest method of tabulating colour—of giving it a name—in order to discuss its relations intelligently?

In a book on composition, question one can be omitted, for composition is only indirectly concerned with permanence and technique. It is equally certain that no useful discussion of colour can be carried on unless question two be answered.

While such terms as "tint," "shade," "brightness," "dullness," "paleness," "vividness," and so forth, are used to mean many things, confusion is still more confounded

when names of colours such as "brown-pink," "nigger-brown," "garter-blue," "stone," "buff," etc., are used. It is only necessary to pay two visits, one to the draper's shop and another to the oil and colour-merchant, to discover the chaotic condition of colour-tabulation. Who amongst us on sitting down in a room and noting the simple flat colour on the wall could write down a request to a colour-merchant or a draper, and by any possible name secure a pigment or material that would match it?

First, then, as a necessity for intelligible discussion, we must seek for a method of notation: a direct, certain, systematic tabulation of colour, and, thanks to the efforts of Munsell and many others, this has been done efficiently enough for all artistic requirements.

A method of tabulating colour is here given:

Every colour, as we see it and remember it, can be considered under three aspects; these are: hue, tone, and saturation. Hue may be regarded as the position of a colour in sequence, starting, let us say, with red and traversing the following track: red, orange, yellow, green, blue, purple, crimson, and back to red again.

If a ring containing the varying hues be made as in Plate XXX A, this sequence will be obvious. The student should not waste time at this juncture by drawing parallels between such a ring and the spectrum. We do not want infra-red and ultra-violet and the dark bars to confuse the issue. A ring made up of pigmental colours is being considered now. Such a ring with the simple terms red, orange, etc., will be familiar at once to all, and it is now necessary to observe a little more closely. If we start once again from red towards orange, an intermediate hue is easily distinguishable. It shall be called red-orange. Again, intermediate hues could be discovered between all the other single-named hues and called by their combined names—orange-yellow, yellow-green, green-blue, etc. To define still further requires a little training in hue-perception. Thus red-red-orange would indicate a red inclining to orange, and yellow-yellow-green would similarly suggest a yellow inclining to green.

PLATE XXXI



SHOWING TWO DEGREES OF SATURATION USED IN A SIMILAR COMPOSITION
A. Weak Saturation
B. Strong Saturation

In writing down such hues the first letters are convenient, thus: R.R.O. (meaning Red-red-orange), O.O.R., B.B.G., and so on.

To carry such a definition farther, if the student's perception is strong enough, would bring R.R.R.O—that is, red with a slight trace or leaning towards orange. Here we come up against the necessity of very definitely known standards, such as the red of sealing-wax, which is a red that might be said to be inclining neither to crimson nor orange. We may be sure that when art education advances we shall have such tests and exercises in school, and standards of colour will be formed at a specially impressionable age. Enough has been said, however, to show how hue can be perceived and defined.

Then comes the second aspect of colour, which we have named tone. Tone is the "lightness" or "darkness" of a hue.

Thus blue could be so diluted with water that only a highly-trained eye could detect its presence; again, it could be so darkened that it would become indistinguishable from black. Hence at extremes it would be necessary to have starting-points of white and black. Starting from white with the faintest trace of blue, the scale would descend and become darker and darker, the blue more and more pronounced, until about three-quarters of the way down the scale it would reach its maximum blueness, after which its blueness would fade imperceptibly into black. Thus it is possible for any hue to start from white and end in black. This is the tone scale, and it can be conveniently graded from 0 to 10, No. 0 being white and No. 10 black. This grading admits of only nine grades, and this is convenient for a rough estimate; but here again it is the business—the practical business—of every art student to become sensitive to at least twenty of such intervals.

For anyone who has any difficulty in grasping this quality it might simplify matters to consider this tone-definition as the photographic quality—the lightness or darkness a colour has when translated into monochrome.

But here again the camera is by no means reliable, even with panchromatic plates, for so many factors, such as development and printing, enter into such a calculation that the standard is far from absolute. If, however, the camera translated into monochrome what the eye sees as light and dark we should have the standard required.

Diagrams B, C, D and E, Plate XXX, illustrate the quality above mentioned.

We may now consider the third aspect: that of saturation. Saturation may be defined as the scale between absolute neutrality (that is, greyness) and purity of hue—without altering the tone.

Reference to diagram F, Plate XXX, will show a small square of neutral grey, tone-number (allowing for reproduction) approximately No. 7 on a No. 0 to No. 10 scale of light and dark. At the other end of this diagram is a square of blue, also No. 7 on the light and dark scale. Three other squares are placed intermediately, which are also No. 7 on the dark and light scale. An increasing degree of blueness will be observed in all the squares except the first (the point of departure—the neutral starting-point). This is a rough indication of the scale of saturation. Again think of the definition: Saturation is the departure from neutrality to absolute purity of hue without altering the tone. The scale, like all other scales, is only arbitrarily divided—in this case 0 to 5—and again it must be indicated that subtlety comes with practice. Two other diagrams of saturation are given in G and H.

To give a colour-notation, then, it is necessary that the three qualities, hue, tone, and saturation, should be understood.

As a formula it could be Hue $\frac{\text{Tone}}{\text{Saturation}}$

Thus—R $\frac{4}{5}$ would give a colour we call “vermilion.”

O $\frac{3}{5}$ would give a colour we call “orange chrome”
with reference to pigment.



COLOUR SCHEME GIVING VALUE TO A HUE (ORANGE RED)
 A. The Dominant Hue with Complementary
 B. The Dominant Hue with Complementary and Small Areas of Discords

BBBP $\frac{8}{5}$ would give us a colour we call "French ultramarine."

RO $\frac{7}{5}$ would give a colour very near "burnt sienna."

It is the browns that are apt to cause confusion in their notation. For example, it is a little difficult at first to recognize raw umber as a dark orange-yellow, yet when such a notation has been mastered it simplifies the issue enormously by cutting out all the pet names, art shades, precious-stone analogies, primaries, secondaries, tertiaries, and the like.

One way of grasping the colour-notation as a whole is to consider a sphere the axis of which is neutral, starting at the top with white and descending through tones of grey to black, as indicated by the layers in Fig. 125.

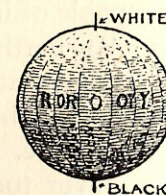


FIG. 125.

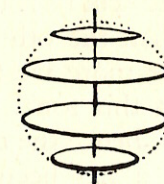


FIG. 126.

Then consider that the lines of longitude represent differences of hue, as shown in the same diagram. A section would have its core or centre as neutral grey, gradually becoming more and more saturated as it approaches the circumference, where full saturation should be reached (Fig. 126). Yet the tone on each successive layer would remain unaltered.

Such a demonstration of the whole scheme of notation would appear at first sight to be the obvious manner of teaching. In practice, however, with our present pigments unequal in their possible saturation at any given tone, the sphere would alter and give place to a potato-like shape, or irregular ovoid.

A short consideration of a few colours will show this. Let the axis, starting from white and descending to black, be taken as before (Fig. 127). In the sections referred to all the surface is equal in tone. Take disc 1 and consider relative saturations. On examination it will be found that the possible saturation of yellow at this position in the scale is far greater than is possible with some of the other

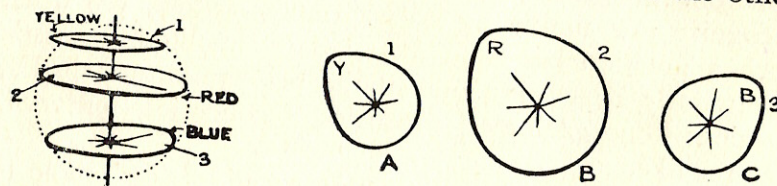


FIG. 127.

hues, hence its true shape would be more like Fig. 127 A. Again, take a disc (or section) a little farther down the axis. Here red will be found to be more capable of increasing saturation than the other hues (Fig. 127 B). Farther down the axis once more we find that blue causes, by its intense saturation at this tonal level, an irregularity in the section (Fig. 127 C); hence the departure from the sphere.

Although it has been said that "it is never too late to learn," it must be admitted that if such a discrimination of colour could be taught at school, both the art student and the colour-loving public would be saved from the muddled terms now in use, and it is not too much to expect that some day the researches of Munsell and his fellow-pioneers will receive the recognition they deserve.

The Munsell colour notation system has been adopted by the American Standards Association as industry's language and standard of colour. Munsell's system is, perhaps, the easiest working system to grasp. In more recent times Wilhelm Ostwald has been able to give us an even more scientific account of colour science. Many of the earlier researches of scientists, such men as Helmholtz, Maxwell, Hering, and Fechner, have been put into their proper perspective. Several controversies have been settled, and a

very correct notation has resulted. For the reader who is especially interested in Ostwald's theories on colour I cannot do better than refer him to the work *Colour Science* in two volumes, which is an authorized translation of Ostwald by J. Scott Taylor, M.A.

CHAPTER XVI

COLOUR EXERCISES

EXERCISES on the foregoing system of tabulation should be practised until the student can give a colour its approximate formula. If the formula be given, its visual counterpart should rise up in the mind, and when appropriate materials are available no difficulty should be experienced in making a colour conform to the formula.

Further exercises to give discrimination might be arranged as follows:—

- (a) Similar hues of different tones.
- (b) Different hues of equal tones.
- (c) Similar hues of different saturations and different tones.
- (d) Different hues of equal saturations and equal tones.
- (e) Different hues of unequal saturation and equal tones.

Many other combinations of terms, all helping students to see and intelligently define colours, could be devised. The objects and methods used must be left to the judgment of the student and the teacher. Munsell and many others have considered such variations at length (Munsell's *Colour Notation*).

Black, white, and the intermediate greys, of any area, can be considered as neutrals, and do not admit of saturation, owing to a difference of lucidity. The neutrals, of course, have a basis common to all hues—that is, in tone.

No visible hue, and consequently no saturation, is present in a true neutral. A great deal has been said by Chevreul and others about the effect on a neutral of a hue in juxtaposition to it. There is a tendency for a neutral to take on a hue opposite to or contrasting with a hue placed



SHOWING COLOUR BALANCE AGAINST NEUTRALS

- A. Gainsborough's "Blue Boy"
- B. Colour Balance Against a Dark Neutral
- C. Colour Balance Against a Light Neutral

against it. If, for example, a true neutral is surrounded by red, we find our so-called neutral turns greenish-blue. What is meant by neutrals in composition is a corrected neutral. A gentle adjustment is often called for in the association of neutrals with hues. It is essentially a condition of the blacks, whites, and greys that they should actually "appear neutral."

A very small area of strongly-saturated colour can be balanced by a large area of colour of a weak saturation. Corot was fond of painting small areas of strong saturation, the remaining larger areas being almost neutral. A small red or blue cap, a light red or light orange roof against the grey-green or grey-blue trees and sky formed the basis of most of his colour-schemes.

Hues demand more saturation as they become smaller in area, in order to compensate, or, shall we say, in order to live alongside of their larger neighbours. If such a condition of relative saturation be stated technically we might say: "In any composition into which colour enters the amount of saturation should be inversely proportionate to the size of the areas." Such a statement implies that we ought to be able to see without difficulty the whole of the areas at once in an equable manner.

There must be a certain equality of titillation, which is another way of saying that a composition must have its areas "adjusted" in the saturation sense. Suppose two equal areas to be lacking in this adjustment in the saturation of their respective hues, the one, let us say, red (vermilion) and the other green-grey (a weak saturation of green). We shall realize even without making the experiment that there is no equality of titillation, for the red area leaps to the eye, but the other hue seems to be retarded, and we are almost unaware of its existence.

It should be seen at once that if one of the areas in a picture or decoration is unduly saturated as compared with its adjacent areas, the strongly-saturated portion breaks up the unity of the colour-scheme, and we are conscious of parts of the same picture at different "time" intervals.

A picture can be, as a whole, weak in saturation—a pearl-like creation, or it can be, as a whole, strong in saturation—a veritable ball of fire! Again, a picture in its smaller areas may be strong in saturation, with larger areas weaker, and this is what happens in the average picture, the reason being that the colours are made to “fit,” have been “adjusted” to suit a pre-arranged set of lines or boundaries and tones. We shall discuss, later, some methods of avoiding this restriction, for it is obvious that freedom of colour is not achieved in this latter condition.

The area-saturation theory outlined above is of outstanding importance in practice, and must be taken for granted in the discussion of the colour-schemes that follow. It will be useful to visit the galleries with the object of consulting pictures, and, above all, of consulting one's feelings, in order to be convinced that this theory is tenable.

Plate XXXI shows two degrees of saturation used in a similar composition.

CHAPTER XVII

HARMONY OF COLOUR

WHEN relative saturation is understood and taken for granted, our further inquiries should undertake to grasp the two different colour possibilities. Let the simplest be taken first.

It might be defined as “a colour-scheme that gives value, or predominance, to a given hue.” We can allow that every one with normal colour-vision can sometimes be conscious of this predominance. Sometimes a scene in Nature is spoken of as being “bathed in a golden light” (orange and yellow). Certain night-effects give a purple sensation, and views are often remembered as being gem-like in quality, turquoise or emerald. Such ideas really mean in the practical sense that qualities giving pleasure are found in such hues.

Painters are often spoken of in relation to their choice of colours; for example, the rich brown of Rembrandt, the vinous tints of Monticelli, the yellow of Vermeer, the coal-red glow of Titian, and the blue nocturnes of Whistler. Many others could be mentioned in this connection, but enough has been said to define our first colour-inquiry, i.e. the predominance of a given hue.

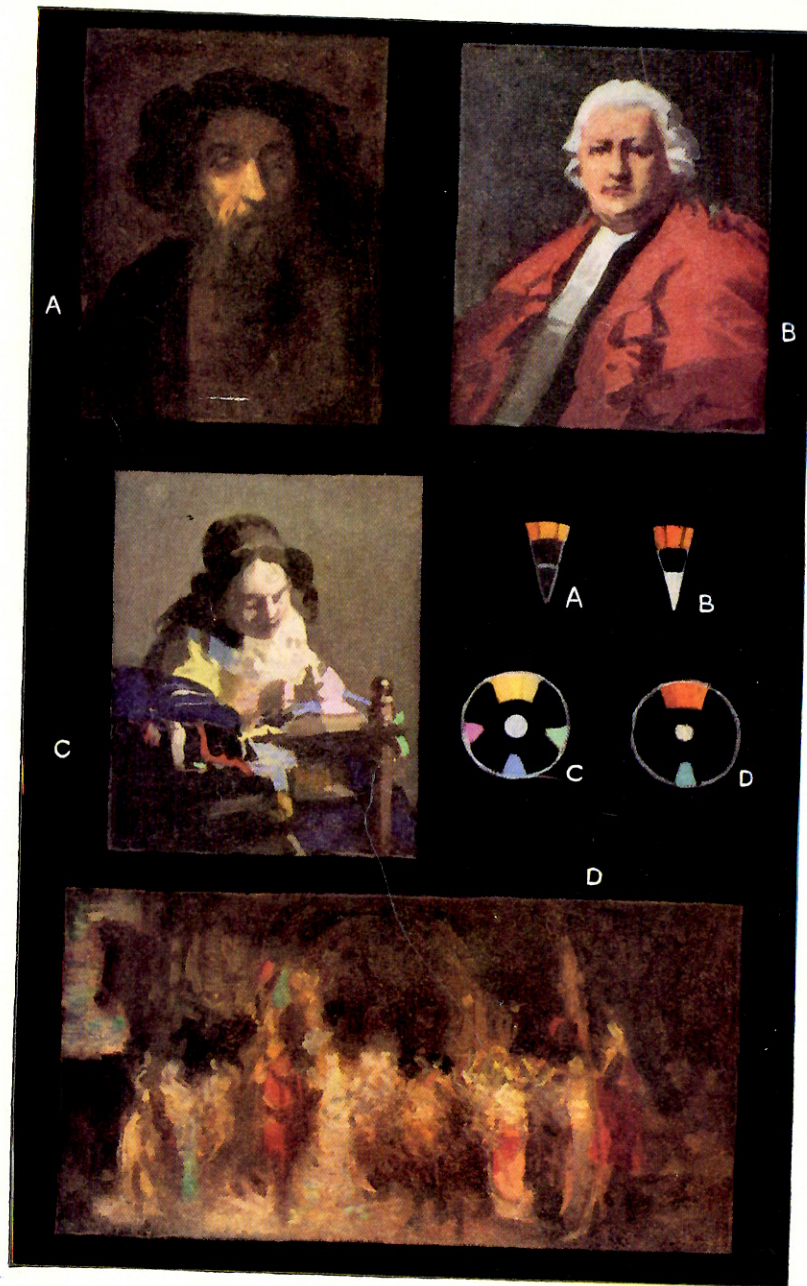
In this inquiry colour-schemes ranging from Nature to the most abstract decoration must be included. Any single-hued object, such as a red cloth or blue hanging, depends for its “quality” upon its environment. Such objects are not in themselves colour-schemes. Our desire is to give quality to any given hue, and it is our business to determine the qualifying factors. We must allow ourselves some medium that can be conveniently modified. Oil paint, in practice, is the most useful medium for such colour-effects, for it can be adjusted with great nicety.

Let orange be the hue chosen, and if a small canvas has

been previously covered with a tone of orange our exercise can commence. If a demonstration is to be given it is desirable that this all-over colour should be dry so as to prevent working up. This orange is to be the colour-basis of a picture. Now mix up two or more tones of orange, darker and lighter than our background, and proceed to design a pattern. Distribution and form will enter into this part of the exercise. If the saturations have been arranged properly, as indicated in the foregoing chapter, we shall arrive at a pattern that is monochromatic in character—that is to say, it will have a range of tone and hue from brown (dark orange) to light orange. It will appear to be a tonal design “dipped” in orange.

When such a design is dry, allow two hues adjacent to orange, red, and yellow, to be used in parts of the design. Allow also two or three tones of neutral grey undiluted with any hue to form part of the design. This neutrality should be of tones that fall in with the rest of the tonal range. We have now the qualifying factors, adjacent hues, and neutrals, and if the proportions have been arranged satisfactorily we have a colour scheme where orange is the predominant hue. Now for a few words respecting the proportions of these qualifying factors. The adjacent hues should preferably be smaller in area than the dominant hue, or the intention is liable to be obscured. Such adjacent hues should balance each other. This balance does not infer equal areas, but rather unequal areas with relative saturations. If such adjacent hues do not balance we displace our original hue. The adjoining diagram should make it clear that if more yellow is used than red the sum-total effect would be yellow-orange, and red-orange would be the dominant hue if the red were unbalanced against the yellow.

The neutrals, “*tuned to look neutral*” to balance any reaction effects, should be sufficient in area to avoid the “dipped” or monochromatic tendency. Neutrals may be regarded as a tonic in such a scheme, and, as Ruskin so aptly puts it, “remaining monkishly aloof,” they consequently give relief and allow us to enjoy the hues. Although adjacent hues with



COLOUR ANALYSIS

- A. Rembrandt, a Hue Balanced by Neutrals
 B. Raeburn, a Hue Balanced by Neutrals
 C. Vermeer, a Hue Balanced by Neutrals, Complementary and Discords
 D. Monticelli, a Hue Balanced by Neutrals and Complementary

HARMONY OF COLOUR

101

neutrals is the simplest of all colour-schemes, it must not be forgotten that linear and tonal design are inextricably bound up with it. Areas and tonal distribution—even the distribution of hues—play a part in making for complete success. The student must be awake to the possibilities of correcting the area, the tone, or the saturation. If a strong saturation of colour is to be welded to a linear and tonal design it often requires extra forms and areas for its accommodation.

Two schemes are illustrated in A and B, Plate XXXIV, each giving predominance to a hue. The description of method must be understood as an attempt on the part of the

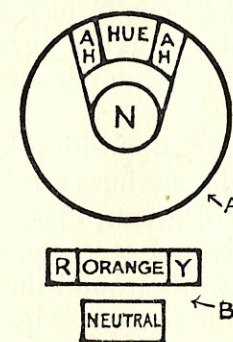


FIG. 128.

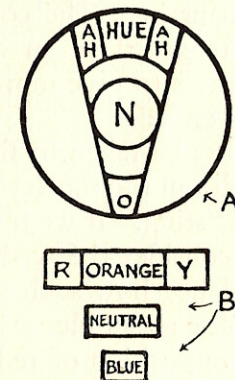


FIG. 129.

author to put clearly what is eventually required in such a scheme.

A picture can and should be painted according to technical traditions, the actual execution having little or nothing to do with composition, apart from consistency of treatment. What is really required by the student is a system of colour-relationship quite independent of any medium.

In the next colour-exercise our aim is still to give value or predominance to a given hue. The two adjoining diagrams, Fig. 128 (A and B), show what has already been attempted in our first colour-adventure. Both diagrams give the same scheme.

If the diagrams are altered to Fig. 129 (A and B), we find

M

the wedge extended to reach the complementary hue (blue). Diagram B is a quantitative rendering of the same scheme as A.

When this hue is introduced into a scheme similar to our last exercise an additional cheerfulness is given. In a picture such a hue allows us to eliminate some of our neutrals, and also renders possible a narrowing of the range of dark and light.

If the neutrals can be said to act as a tonic to the dominant hue, this contrasting hue can be said to act as a "super-tonic," and great care must be taken to restrict its area, or competition will arise, and we shall no longer be certain of the dominant hue. The contrasting or complementary hue must be regarded as an additional qualifying agent, and when it ceases to give more quality to the dominant hue its mission is ended.

Care must be taken to find the exact opposition hue, for if it spreads out too much towards adjacent hues it is inclined to lose its "sting." If we turn to the diagrams, Figs. 128 and 129, and consider the wedges as pivoted centrally, we can see at a glance how such schemes work around the circle; for example a green-blue scheme would possess, at its wedge-point, an opposition of red. This is all that need be said *at present* regarding the theory of this first colour scheme. The illustration A in Plate XXXII shows this scheme.

In practice the student is advised to carry out schemes on the lines indicated through the whole gamut of colour. Pictures and colour-schemes generally should be consulted. The student will be amazed to find the large number of pictures that have been painted on such a basis of colour arrangement. A few such pictures are analysed in Plate XXXIV, A, B and D.

Nature often suggests such colour-schemes—the purple-blue evening with its yellow spots of light, the cornfield against the grey sky, the cornfield with white clouds and blue sky. At the risk of repetition it must be urged that the student should remember his rectangular area as a limiting shape if he paints such a subject. It is within this shape that

his cornfield, white clouds, and blue sky must be arranged. It is the areas allowed for the orange, neutral, and blue that contribute to his success or failure.

If, indoors, we observe a dark-blue vase containing orange marigolds against a grey wall, we have again the question of areas and relative saturation to deal with.

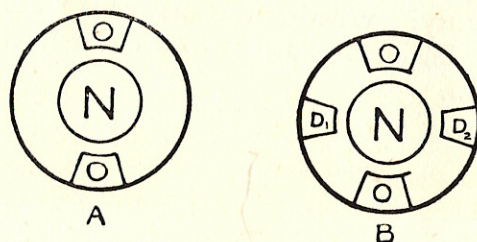
Nature makes every colour-scheme a success, and this is probably due to the fact that we arrange her illimitable areas as we appreciate them. A great deal can be learnt by arranging colour-schemes in groups of still life on the lines that have been suggested in the exercise. It is an excellent training to arrange the colour-scheme of a room, and although such opportunities are rare for most of us, we can study other people's rooms. We should consult our feelings first, not our intelligence. We should say to ourselves, "Do I, without any theorizing, *feel* the colour-scheme to be satisfactory?" Whether the answer is "Yes" or "No," it is then our business as artists to use our intelligence and find the reason.

CHAPTER XVIII

BALANCE OF COLOUR

THE second colour-possibility may be defined as "opposite hues balanced against a neutral." The word "balanced," used in this connection, means "equal quantities of opposite hues, or their equivalent." Informal designs should possess unequal areas with the necessary unequal saturations. Formal designs may use equal areas and equal saturations.

Adjacent hues on both sides of the opposite hues give



N = NEUTRALS.
O = OPPOSITION HUES.
D = DISCORDS.

FIG. 130.

variety, but care must be taken that the sense of opposition is not lost. A diagrammatic arrangement is given in Fig. 130, A, with several examples of its pictorial application on Plate XXXIII.

It must be understood in the first colour-possibility given in the previous chapter the neutrals and complementary tend to give predominance to a hue. Such qualifying factors form an antidote, their object being to prevent a cloying sensation. In consequence they give quality.

In the second colour-possibility hues cancel out by reason



METHODS OF BEGINNING A COMPOSITION

A. By Line
B. By Tone
C and D. By Colour
(Referred to in the last chapter)

of the quantity and equality of their opposition, for the hues, no longer having any bias, give predominance to the neutrals. Even when the hues cancel out in the manner suggested, the neutrals require sufficient form-content with appropriate distribution before they acquire quality. When these conditions are given, the white cloud, the grey cloak, the black velvet dress, or any other neutral objects, acquire their maximum importance as neutrals.

The scheme does not necessarily demand a neutral space, for it is possible for the neutrals to weave themselves all through a composition. Such a departure from the original intention is something in the nature of a compromise, or a concession to tone. The acceptance of neutrals as the dominant idea of a colour-arrangement is rarer than those schemes where hues are the chief colour-interest, although a great number of delightful examples are given by Turner, Whistler, and many of the Japanese colour printers.

CHAPTER XIX

DISCORDS

IN this chapter the term "discord" means hues that are not adjacent, or are opposed, to another given hue. If two such separated hues—say orange and purple-red—are seen side by side they disagree, or give a feeling of uneasiness. Such differences of hue do not unite or give relief, for they are neither neighbours nor opponents. Yet when such strangers enter into a colour-scheme they stimulate and challenge our colour-sense activities. If we consult the ring of hues we find that every hue has its discords, removed to a distance on either side. When the distance from the original hue is too great the discords are inclined to fuse with the opposing or contrasting hue, and again, if it is not great enough, they are inclined to unite.

The position that is most effective is where neither of these failings occurs. It is their aloofness, their incongruity as hues, that constitutes the stimulant. Discords, when properly designed in the matter of form and area, are delightful surprises—odd, strange, and unexpected, but nevertheless entertaining. Many portraits have been painted in which the predominant hue of the flesh-colour is discordant, and some of the finest landscapes owe their colour-charm to the "odd" hues on roofs or the unexpected colour-notes on small figures.

Discords naturally detach themselves, and when such detachment is more than the picture (or the artist) can stand, they require amalgamation, and must be resolved by links of intermediate hues to join them either to the general hue or its opposition. The amount of area that can be devoted to such discordant hues varies considerably with individuals. Whilst one person can bear a very wide-awake colour-scheme, and can genuinely appreciate its soundness

DISCORDS

of structure, another will sigh for a more cloying statement. Many students have read how the Pre-Raphaelites were reviled for their departure from the indoor monotonous colour-traditions of their time. Every new outburst of this kind, whether in colour or music, seems, temporarily at least, to shatter the world of previous conviction. It is the business of the student to understand such colour-relations in order to be able to loose or leash them as he desires. One outstanding factor in controlling such hues is to observe their balance.

A glance at the accompanying diagram, Fig. 131, C, should show what is meant.

Plate XXXII, B, shows the first colour-scheme with two

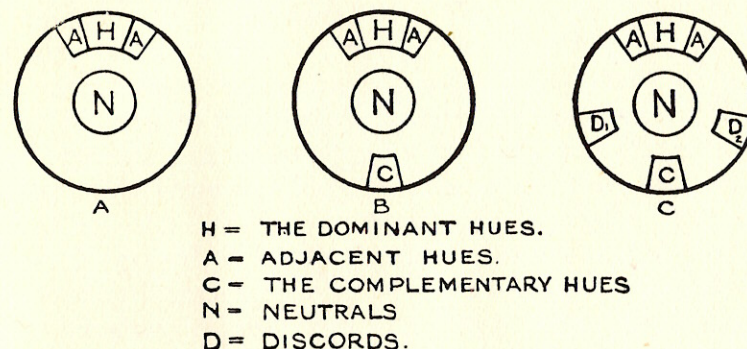


FIG. 131.

discords, one on each side. It should be obvious that if D₁ or D₂ be subtracted separately, the scheme is thrown out of balance. It veers round, and the result is most unsatisfactory, for it has lost its intention.

The discords must be dual in character, with unequal areas and unequal saturations to balance in informal works, such as pictures. Discords must be dual in character, and may have equal areas and equal saturations in work or design of a formal character.

The same remarks apply to the second colour-scheme, as shown in Fig. 130, B.

Perhaps the most important fact to remember, after the balance idea, is that there is a possibility of enlarging the discord areas so that the original intention changes its character and the entertaining odd notes attempt to become the colour-scheme.

CHAPTER XX

COLOUR-CONSIDERATION

THE suggestion that only two ideas or starting-points in colour-composition are possible may seem at first sight to narrow unduly the range of colour-possibilities, yet it can be confidently asserted that on careful analysis all the satisfactory colour-schemes will be found to be based on one or the other. Such a starting-point has the merit of simplicity whilst allowing the utmost freedom of colour-expression consistent with order. There are in all probability many solutions to our colour-difficulties, and all that can be claimed for such a method as the one here outlined is that it helps to establish a definite colour-intention. When the student sees what appears to be a satisfying colour-scheme, the areas should be sketched and the colour-notation filled in after which an analysis can be made. The conclusion formed will help to strengthen his colour-purpose. When Sir Joshua Reynolds thought that all pictures should be of a warm colour, with just enough cold colour to give value to the warm, he used the word "warm" to mean hues that approach orange-red, and by "cold" he meant the hues in the neighbourhood of blue. We find that such a scheme comes under our first category. When Gainsborough accepted such a challenge and painted *The Blue Boy*, it came under our second category, the blue being balanced by a warm against a neutral. Both painters often used small areas of discords in addition.

Many years after, Whistler "really" painted blue schemes, blue-green schemes, and purple-blue schemes. They still come under our first category. Several of his symphonies in white come under our second. Reynolds would in all likelihood have objected to the blue schemes, although a Chinese vase with precisely the same colour-sensation would

probably have met with his approval. Colour-appreciation, like sound-appreciation, seems to have expanded since then; nevertheless Reynolds was right in saying that the old masters, at their best, preferred a warm bias.

Nearly all the colour-difficulties we encounter are due to squeezing a colour-scheme into pre-arranged areas. A student sometimes requires a particular colour-scheme to fit into a certain "form-condition," and it often happens that if there is no compromise there is no solution.

One well-known compromise, frequently seen in book-illustrations, occurs when it is required to give colour to what was primarily designed as a line-illustration. To give a special case, let us assume that a blue-green colour-scheme to represent moonlight is to be imposed on a linear design where the colour-quantities had not been given consideration. Perhaps the only areas that can feasibly take blue-green are quite small against the remaining neutral white. Blue-green of a weak saturation is allowed to spread over the neutral white. This gives unity of hue, but the greatest possible charm of blue-green as a hue is absent.

Many coloured illustrations, and even exhibition pictures, are given a "tinted" mount. It suits them—another compromise—for the balancing hue has arrived, but outside the picture.

When a picture is to be framed in gold it should be painted in its frame, or we should find that even gold, a metallic value, affects our colour-balance, and adjustments will be necessary. In conditions of colour where atmosphere is to be expressed the elimination of the neutrals plays an important part. It might be said that during the last century a good deal of research has been directed to this elimination of the neutrals by the substitution of colours that in themselves cancel out. Thus in atmospheric renderings of colour the white is tuned warm and cold (or orange and blue), and the darks relieved from absolute flat neutrality by the substitution of purple and dark yellow-green hues that cancel each other. The hues that have been mentioned in this connection are obviously only illustrations, for any

opposition hues will eliminate absolute neutrality. Such a titillation of the neutrals is a compromise to atmosphere—to three-dimensional renderings—in order to secure "plausibility."

In such cases of colour-orchestration the student will do well to start from the colour-ideas originally outlined, allowing his neutrals to stand for a time. This may be more abstract, but it allows him to know his own colour-structure.

When a colour-scheme goes wrong or gets out of hand we must methodically go back to the simple colour-idea. Saturations must be scrutinized, after which the total pattern and form-content should be considered.

If this should be as we wish, the balance of hue is the probable offender. The track towards simplification could conveniently run as follows:

The areas occupied by the discords, if any, could be filled by hues chosen from the first colour-intention. The complementary colour, if any, could be reduced in area. The whole scheme of saturation could be made less intense. It will be clear from such advice that the track lies towards monochrome and neutrality.

Sometimes the forms were the real incentive in starting a composition, and these may have become nullified by the strongly-saturated colours.

Most students spend their time trying to effect a compromise instead of attempting a trenchant rendering of their æsthetic intention.

CHAPTER XXI

CONCLUSION

WHETHER or not the student with the inner æsthetic vision can be considered an artist unless he makes some attempt at personal expression is a matter of controversy. Perhaps the artist is the person with æsthetic ideas who expresses them to prove that they really "happen"!

If we put all commercial considerations, commissions, and the like aside, we shall probably agree that something of this inner æsthetic feeling is the first urge towards expression. The second desire (a long way second) of the real innovators is to communicate such ideas to others.

Even when technique has been mastered early in an artist's life the question of whether his conceptions are given their proper channel of expression is perplexing.

Many an artist whose ideas are conceived in planes, in cubic content, in facets, or in mass relations, paints, when perhaps architecture or sculpture would have allowed more complete expression of his inspiration. Others, whose ideas come in tone-pattern, might be well advised to give up etching.

Then there is the man who scrupulously and conscientiously paints "what he sees," who paints without selection—the stickler for fragmentary truth. We all know this man, and sometimes feel that a camera should be his weapon. It is extremely unlikely that the photographers would admit him to their ranks, however. It is our business as artists, as composers, to make sure that our ideas arrive in their final state as pictures, illustrations, or decorations with the least amount of vacillation *en route*. Most artists, by tradition, by personal experience, and by giving little thought to the matter, begin their pictures by form.

CONCLUSION

It is admitted that forms, the sweeping rhythmic lines that give significant intention to a composition, are often put down first, and in most cases rightly so. The ideas may really come that way. After the limiting forms we allow tone and colour to enter into the scheme—to "improve" it.

Such a plan of work is so obvious and so well established that it seems almost like sacrilege to suggest that such a method of approach does not always succeed. Yet if the artist is critical and honest, as he must be, he knows that ideas occasionally elude him. They have slipped away somewhere in the approach, and it is this fact that should justify the student in arming himself with two other effective methods of beginning a composition. Sometimes an idea can come into being better if we approach our scheme through tone.

Ideas that are by their nature evanescent, mysterious, or romantic seem eminently suitable for this approach. A delightful pattern of light and dark, a complicated scheme of tone, is often realized better if we adopt this method. Form must, obviously, enter into such an approach, yet with a little thought on the part of the student it can be kept in abeyance or delayed. Such forms that we know must eventually be drawn can, for a while, be kept at the back of the mind.

Leonardo da Vinci was fond of nebulous blots on walls or paper, and after his powerful imagination had pondered on them he amplified and encouraged them until forms emerged. In such a case the forms were suggested as the tones developed. It is quite possible—indeed, we can say preferable—on occasions to keep the form-content of an idea held back in order that the areas of tones, the subtleties of dark and light, may appropriately convey the idea.

When one is sketching out of doors, significant forms can sometimes be given a rest and a significant tonal pattern, a spotting, take their place, making an approach to natural representation by tonal mass.

Form, when it comes first, is inclined to pre-distribute the tone unfavourably. It requires courage to knock out the

forms in order to re-arrange the unsatisfactory tonal scheme, whereas if a beginning had been made with tone, with a special eye on the tonal pattern, the forms could take their proper place as the work proceeded.

Colour as the approach to an idea is almost unknown to students. Many artists, teachers, and art critics have considered colour as a sort of additional flavour. Forms, and consequently the tonal areas, are usually given the first consideration. The saturations of the hues in such a method would be limited.

Although hues can be freely chosen to fill all the areas of such a pattern, the saturations are governed by the areas. Thus freedom of colour is curtailed considerably. Vitality is usually restored by widening the range of tones or strengthening the forms, thus effecting a compromise. Corot writes: "The two principal things to study are form and then values. These two things are my support and are important in art. Colour and execution put charm into one's work."

Many other painters and art critics have come to similar conclusions. There is such stability and intellectual certainty in the form method of approach to painting that no one can be blamed for adopting this hereditary track.

Some artists have felt, however, that if there is one thing that differentiates painting from all the other forms of art—sculpture, architecture, etching, etc.—it is the quality that can be given to colour. Perhaps painting is the one permanent medium whereby colour can receive its best expression.

Most of us have on occasion felt the delirious joy that is to be found in colour. We have tried to retain such ideas, but by the time forms have been arranged "to contain" the colours a disappointment is experienced; the quantities have gone wrong and a compromise has to be made. It is possible to some extent to avoid this limitation, but we must give up our hereditary methods of approach. We must take our colours first, spread them on, making them vary in hue, add our discords, and give variety to the tonal side of colour. We must "live" in colour, and to the best of our ability fight the tendency to bind up or to give boundaries to such areas.

The work must remain nebulous and mobile until the "colour-sensation" we felt has arrived. Nor must it be thought that such a procedure drives one into vague, dreamy work, or that such results will be inevitably weak.

All the time we must attempt to keep the "form-content" in such an approach submerged.

If colour is our objective, we should attempt it first, adding our forms last after the hues and the saturations we desire have been gradually worked up. By such means we make the colours we want occupy areas where their desirable saturations will be in order.

Monticelli, Turner, and many other artists, even if they did not use such an approach, might presumably have worked in this way. The three methods of approach here outlined are illustrated in Plate XXXV.

Once the composition or design of a picture has been arrived at, no matter which approach was used to bring it into being, the painting of a picture should be a fairly straightforward task. In the old days it was the master who composed the picture in line, tone, and colour, whereas in many instances the actual painting was looked upon as a secondary affair, a job. The apprentices of those days possessed considerable technical efficiency in drawing, painting, colour-mixing, enlarging, and the other details of the craft. It was only when the pupil could compose that he became a possible rival to his master.

INDEX

- Analysis of colour in picture by Gainsborough (Plate XXXIII)
 - Monticelli (Plate XXXIV)
 - Raeburn (Plate XXXIV)
 - Rembrandt (Plate XXXIV)
 - Vermeer (Plate XXXIV)
- Analysis of interchange, 11, 12, 13
 - of line-direction, human figure, 37-51
 - and in pictures, 37-51
 - trees, 38
- Analysis of tone in picture by Chavannes, 15
 - Flint, 15
 - Goya, 14
 - Manet, 14
 - Short, 15
 - Turner, 14
- Area, gradation proportionate to, 20, 21
- Artists, Beato Angelico (Plate XXI)
 - Blake, 2
 - Botticelli (Plate XXI)
 - Brangwyn, Sir Frank, 24 (Plate XVIII)
 - Canaletto, 79
 - Cézanne (Plate XIX)
 - Chasseriau, 60, 61
 - Chavannes (Plate XI)
 - Corot, 68, 97
 - Crane (Plate XVII)
 - Decamps (Plate XIV)
 - El Greco 80, (Plate I)
 - Evenepoel (Plate XIV)
 - Flint, Sir W. Russell (Plate X)
 - Gainsborough, 109 (Plate XXXIII)
 - Giotto, 64
 - Goya, 14 (Plate VIII)
 - Harpignies, 13
 - Hokusai (Plate XII)
 - Kunisada, 86 (Plate XXVII)
 - Leibl, 10
 - Leonardo da Vinci, 63, 67, 113
 - Manet, 14 (Plate VI)
 - Marées, 49
 - Maris, M. (Plate XV)
 - Millet, 50
 - Monticelli, 99, 115 (Plate XXXIV)
 - Murillo (Plate XV)
 - Raeburn (Plate XXXIV)
 - Raphael (Plate XV)
 - Rembrandt, 86, 99 (Plate XXI, XXV, XXVIII, XXXIV)
 - Reynolds, 41, 88, 110
 - Rivière (Plate XXIV)
 - Segantini, 61
 - Short, Sir Frank (Plate IX)
 - Titian (Plates XV, XXI)
 - Turner, 2, 86 (Plates VII, XVI, XXIII, XXIX)
 - Vandyke (Plate XV)

INDEX

- Artists, Velasquez, 41, 75 (Plate XXI)
 - Vermeer, 99 (Plate XXXIV)
 - Watteau (Plate XV)
 - Whistler, 13, 16, 58, 71, 105 (Plate XXII)
 - Yeizan, 3 (Plate III)
- Balance, sense of, 6
- Beato Angelico (Plate XXI)
- Black, distribution of, 5-9
 - scale of areas, 22
- Blake, 2
- Botticelli (Plate XXI)
- Brangwyn, Sir Frank, 24 (Plate XVIII)
- Canaletto, 79
- Cézanne (Plate XIX)
- Chasseriau, composition from, 60
- Colour, approach by means of, 115
 - balance of, 104
 - compromise in, 110
 - correction of, 111
 - exercises with, 96
 - harmony of, 99-103
 - hue in, 90
 - Munsell on, 90-4
 - pictures by Gainsborough, 109 (Plate XXXIII)
 - Monticelli, 99, 115 (Plate XXXIV)
 - Raeburn (Plate XXXIV)
 - Rembrandt, 99 (Plate XXXIV)
 - Vermeer, 99 (Plate XXXIV)
 - reference by Reynolds to, 88, 109
 - relation of neutrals to, 97, 101, 104
 - relative saturation in, 97
 - saturation of, 92
 - tabulation, 89-93
 - tone of, 91
- Continuity of line in arm, 47
 - in the human figure, 44-9 (Plates XX and XXI)
- Contour, development of, 50
 - gradation affecting, 18
- Corot, colour of, 97
 - tree radiation in picture by, 68
- Dark and light, 3
 - intensity of, 15
- Decoration by Chavannes, 15
 - in pictures, 2
 - true nature of, 3, 4
- Depth, avoidance of, 3
- Decamps (Plate XIV)
- Distribution, equilibrium of tone, 7
 - imperfect, 6, 9
 - of tone, 5-9
- El Greco, 80 (Plate I, Frontispiece)
- Etching considered as pattern, 15
- Evenepoel, "The Spaniard in Paris" (Plate XIV)

- Exercises in line-direction, 39
 - in scale, 23, 29
 - in tone reversal, 30
 - with colour, 96
 - with tone, 27-32
- Figure composition, 49, 50
- Form, representation by line, 18
- Formal interchange, 10, 11, 12
 - pattern, 5
- Gainsborough, 109 (Plate XXXIII)
- Giotto, 64
- Goya, 14 (Plate VIII)
- Gradation, 2, 17-21
 - suggested by line, 19
 - vitality suggested by, 20
- Grey paper exercises, 28
- Greys, distribution of, 7
- Hambidge, J., 55
- Harpignies, 13
- Interchange, formal, 11
 - of tone, 10-13
 - over-emphasis of, 23
- Japanese, 3
 - art and gradation, 17
 - design, 87
 - print by Kunisada, 86 (Plate XXVII)
 - Yeizan (Plate III)
- Kunisada, print by, 86 (Plate XXVII)
- Leibl, W., "Village Politicians," 10
- Leonardo da Vinci, 63
 - radiation in "Last Supper," 67
 - treatment of blots, 113
- Light and Shade, 1-3
- Linear rendering of tone, 34, 35
- Line-direction, 33-49
 - exercise in 39
 - in still life, 42, 43
 - straightness and curvature, 44
 - suggesting movement, 37-40
 - repose, 37
 - vitality, 40, 41
- Lines, division of, 52
 - transition of, 46
 - treatment of discordant, 46
- Manet, E., tone analysis of picture by, 14 (Plate VI)
- Marées, H. V., 49

- Maris, M., tone simplification of picture by (Plate XV)
- Materials required for tone exercises, 27
- Millet, J., 50
- Monticelli, 99, 115 (Plate XXXIV)
- Munsell, 90, 94
- Murillo, tone simplification of picture by (Plate XV)
- Ostwald colour tabulation, 94, 95
- Pattern, constant quality of, 2
 - inherent, 2
 - sense, 7
- Perspective and radiation, 66-7
 - in play-bills and posters, 74
 - in relation to composition, 63-75
 - pictures without, 63
- Radiation, 66-9
- Raeburn (Plate XXXIV)
- Raphael, tone simplification of pictures by (Plate XV)
- Recession in El Greco picture, 80 (Plate I, frontispiece)
- Recession, divided interest in, 77
 - planes in, 77
 - tone convention in, 79
- Rectangle, illogical distribution in, 6
 - restraining character of, 2
 - subdivision of a, 54-62
- Rectangles, consistent, 54
 - eyes in, 57
 - square root, 56
- Rembrandt, references to, 99, 86 (Plates XXI, XXV, XXVIII, XXXIV)
- Reynolds, Sir J., line-direction in picture by, 41
 - references to colour, 88, 110
- Rhythm, 81-7
 - in pictures by Kunisada, 86 (Plate XXVII)
 - Rembrandt, 87 (Plate XXVIII)
 - Turner, 87 (Plate XXIX)
 - personal experience of, 81
 - in architecture, 85
 - in floating materials, 82 (Plate XXVI)
 - in Nature, 83
- Rivière, H., picture illustrating perspective law (Plate XXIV)
- Scale, 22-5
 - descent in, 23
 - exercises, 23, 29
 - lack of, 29
- Scraper board, 34, 35
- Segantini, design by, 61
- Sense of form, 8
- Shadow forms, 3
- Three-dimensional pictures, 3
 - interchange, 11-13
- Titian, line simplification of pictures by (Plate XXI)
 - reference to, 99
 - tone simplification of pictures by (Plate XV)

- Tonal designs adapted for various mediums, 33
- Tone, definition of, 1
 - displacement of, 8
 - distribution of, 5-9
 - in reversal of, 30
 - exercises, materials required, 27-31
 - how to study masters of, 24
 - intermediate, 24
 - suggestion by line, 19
 - unbalanced, 6-9
- Transition of line in architecture, 46
 - feet, 46
 - neck, 45
 - tree, 45
- Turner, J. M. W., later phases of work, 2
 - perspective in picture by (Plate XXIII)
 - rhythm in, 87 (Plate XXIX)
 - "The Shipwreck" (Plate XVI)
 - tone area in (Plate VII)
- Two-dimensional art, 3, 76
 - interchange in, 13
- Vandyke, tone simplification in pictures of (Plate XV)
- Velasquez, line-direction of, 41
 - line-direction (Plate XXI)
 - perspective in, 75
- Vermeer, 99 (Plate XXXIV)
- Visual experience, 2
- Vitality given by gradation, 20
 - line, 39-41
- Watteau, tone simplification of picture by (Plate XV)
- Whistler, J., area analysis of picture, 58 (Plate XXII)
 - references to, 12, 16, 71, 105
 - tone analysis of picture, 13
- White, distribution of, 7
 - scale of areas in, 22
- Yeizan, 4 (Plate III)